THE

MEDICAL EXAMINER

AND

RECORD OF MEDICAL SCIENCE.

NEW SERIES.—No. XXV.—JANUARY, 1847.

ORIGINAL COMMUNICATIONS.

Remarks on the Urinometer. By W. S. W. Ruschenberger, M. D., U. S. N.

U. S. Naval Hospital,
New York, December 5th, 1846.

My Dear Sir,—Those members of the profession who may be engaged in investigating the changes induced in the constitution of urine by disease, may be led into error by using a gravimeter or urinometer, manufactured in Philadelphia, and known as Prout's, for ascertaining the specific gravity of the fluid. The instrument to which I allude consists of a copper ball, surmounted by a graduated stem of box-wood, balanced below by a brass wire and pea. The point at which the stem floats in distilled water is marked at zero, and the point at which it stands in a saturated solution of common salt, forms the opposite extremity of the scale, the interval being divided into sixty degrees.

If placed gently in a fluid under examination it will stand, say for illustration at 30°, but immerse the instrumeut entirely, so as to completely wet the stem, it will rise and fall, and become quiescent at 20°. I have repeated the experiment very frequently with the same result, in the same fluid, after wiping the stem dry, and in different fluids. I have also compared the specific gravity of fluids ascertained by this gravimeter, with the specific gravity of the same fluids ascertained by an accurately made specific gravity bottle, and found the result different in every instance, and without any corresponding ratio of difference.

Supposing it possible that the error might be confined to the particular instrument in my possession, I submitted it to the manufacturer for adjustment, and took the opportunity to compare it with four other instruments then on sale in his shop. We found that no two of the five instruments corresponded in their respective indications of specific gravity; and further, that every instrument varied from 6 to 10 degrees in its indication of specific gravity, according as it was gently permitted to subside into the fluid, or entirely immersed so as to wet the whole stem or scale. The price of the instrument with the case is seven dollars; its value for practical purposes is not a cent. The indications by it are too uncertain and too irregular to be even proximative to accuracy.

This instrument was exhibited at the fair of the Franklin Institute in 1845, but whether it received approval or not I do not remember. The objections to it might possibly be removed, if, instead of box-wood, metal were used for the gratuated scale or stem of the instrument.

The hydrometers of Beaumé and Gay Lussac are almost equally fallacious. After very numerous experiments the conclusion arrived at is, that the only true way of arriving at the specific gravity of urine or other fluid, is by means of the thousand-grain bottle and counterpoise.

If you consider the above information of any interest, it may be worth a place in the "Medical Examiner."

Very respectfully,
W. S. W. Ruschenberger.

Professor R. M. Huston, *Philadelphia.*

Three cases of presentation of the Face to the Sacrum, successfully treated without turning. By T. Van Valzah, M.D., of Mifflinburg, Pennsylvania.

Mrs. Shively, on the 12th day of February, 1828, sent for me in great haste, on account of a very profuse hemorrhage. When I entered the room, I found her lying on her back near the bedside. With as little delay as possible I made an examination, and found the face low in the hollow of the sacrum. Under these unfavourable circumstances, according to the directions of Dr. Dewees, I determined on turning and delivering by the feet. So without changing her position, I directed an assistant to support her left knee, and supporting the right one myself, I introduced my right hand into the vagina, and placing two fingers on each side of the nose, having the forehead in the hol-

low of my hand, I raised the whole head up out of the pelvis, and as it became disengaged, by a very little traction with the points of my fingers, the chin fell back towards the sternum, and fortunately at that instant the uterus began to contract with great force. The head being now in the first position I withdrew my hand as it advanced, and the whole cranium was born with the same pain, and the body with the next. The placenta was thrown off in about fifteen or twenty minutes. The mother and child both did well.

April 13th, 1842. Mrs. Beckley, residing in Mifflinburg, sent for me in the evening. On examination I found the face coming down with the chin in the hollow of the sacrum, the os uteri but partially dilated. Encouraged by my success in the treatment of the former case, I now awaited the dilating process very attentively for about two hours, when it became sufficiently great to operate. I then had my patient placed on her back near the bed stock, and directing an assistant to support the left knee, while I supported the right myself, I introduced my hand into the vagina, placing two fingers on each side of the nose, having the forehead in the hollow of my hand, I disengaged the head from the pelvis by raising it up, at the same time directing the chin towards the sternum. The head being now in the first position, I withdrew my hand as it advanced. The labour progressed speedily and safely. The mother and child both did well.

April 21st, 1842. Mrs. Kleckner, about to be confined the eighth or ninth time, sent for me in the afternoon. On making an examination, "per vaginam," I found this also to be a face presentation, and in every respect similar to that of Mrs. Beckley, which occurred but eight days before. It is sufficient to say that I treated this case precisely as I did Mrs. Beckley. Mother and child are both living and well at this time.

Case of Retention of Fœtal Bones in the Uterus during four years.
Communicated in a letter to the Editor, by JAMES B. ELLIS, M.D., of Ripley, Miss.

On the 29th of January, 1846, I was called by Dr. James Thompson, to see Mrs. Mary Ann Fields, about 25 miles distant from this place, aged 27 years, who gave me the following account of her case:

In Cass county, Georgia, early in April, 1842, she was confined at full time in her first pregnancy; her labour was very lingering, and the physician she sent for advised her to trust to the powers of nature, and left her. Her pains soon after ceased. At the time, she

was unable to rise from her bed, and she therefore sent for two other medical gentlemen, and requested them to assist her. They told her that her pains would very probably return again, and all would terminate well. Her pains, however, did not return, and in about four months after, the decomposed flesh of the child commenced passing off rapidly, per vaginam ; she said the fetor was insupportable to her friends, so much so that visiters could scarcely come into her room. In about six months from her confinement to bed, the discharges ceased, and her health began to improve rapidly.

From this time her menstrual discharges returned, and continued regular in time, quantity and consistence, for more than three years. During this period there was a tumour in the epigastrium, that always gave a dull pain on pressure. Her disposition was cheerful, and continued as good as usual during this time. She consulted every medical gentleman that she could conveniently, but none agreed with her that the bones of the fœtus remained in the uterus. One expressed it as his opinion that the case was one of extra uterine conception. This, however, could hardly have been so, for she says the putrid flesh passed away rapidly per vaginam. About the middle of the summer of 1845 she was taken with typhoid fever, a disease that prevailed very generally in this section of country at that time. During the existence of her illness, there was considerable pain developed in the tumour spoken of, and she expressed to her attending physician her confident belief that the bones of her child were still in the uterus, and requested him to endeavour to extract them, but she said he only laughed at her and told her such a thing was impossible. After the abatement of her fever, her physician discontinued his visits, but she was still unable to walk from the violence of the pains in the uterus. During the succeeding winter, my friend Dr. James Thompson was called to see her. He found the tumour very large and painful, and the os uteri hard, and apparently sealed, and her general health very bad. He commenced treating her case on general principles, giving her tonics, alterants, anodynes, hip baths, etc. During the time I was occasionally consulted by him with reference to her case. A few days before I was first called to see her, she passed several very hard rough substances per rectum, which on examination were found to be bones. In a day or two she passed 25 or 30 bones, mostly small. At my request, Dr. Black accompanied me to see her, and on examination per rectum, I could distinctly feel a large fistulous opening from the rectum to the uterus, and could tell from her discharges that ulceration was going on rapidly. The ends of some of the long bones passed into the rectum and prevented a free discharge from her bowels, and at every attempt at defecation the bones were borne down against the raw edge of the fistula, which gave her excruciating pain. We had no instruments with us at the time for extracting the bones, having

gone as much for curiosity as any prospect of doing her any good. We mustered up such rude instruments however as we could command on the spot, and requested Dr. Laird to assist us. With these we dilated the rectum, and with a pair of long curved forceps extracted the projecting bones. The operation was so very painful, the whole mucous membrane of the rectum being ulcerated, that she utterly refused to suffer any attempts at further efforts. She said she knew she would die, and would not suffer any pain that she could avoid.

We recommended Dr. Thompson to use anodyne mucilaginous enemas, pulv. charcoal, as a laxative, warm astringent hip baths, and such tonics as she could bear. This treatment she submitted to, although sometimes reluctantly. She continued to pass off bones more or less every day, and sometimes entertained hopes of recovery. At her death, (about the 20th of March, 1846,) Dr. Thompson thought she had discharged nearly all the bones, only a few of the cranium remaining. The fistulous opening was very large at the time of her death. A post mortem examination, I regret to state, could not be obtained. The statements made by Mrs. Fields, of her symptoms and sufferings, are all confirmed by her husband, and I have no doubt of their correctness. Some of the bones are in my possession now, which I will exhibit to you next winter, when I hope to have the pleasure of listening to your lectures again.

I have the honor to be, very respectfully,
Your friend and obedient servant,
JAMES B. ELLIS.

On the Inhalation of Sulphuric Ether. By J. B. FLAGG, M. D. of Philadelphia, Surgeon Dentist.

The medical world is pretty fully advised as to the narcotic influence of this drug, when its vapour is inhaled into the lungs *under peculiar circumstances.*

Desirous of promoting the cause of science, and curious to test its efficacy when applied to painful operations, I have been engaged for several weeks past in experimenting with it, both in its pure washed state, and compounded to a very limited extent with oil of wine; first upon myself, and then upon many friends. I will proceed to give a few remarks as to its legitimate use, and its recent *illegitimate introduction* to the profession of surgery.

The effects of sulphuric ether, when inhaled, have long been known to be similar to those of nitrous oxide; varying, according to idiosyncrasy and to the object in view. If inhaled with a certain degree of doubt as to its capacity to effect, it is most sure to produce a melancholy train of thought for the time being, accompanied

with weeping or other symptoms of distress. If taken with a view to produce merriment, its tendency, in a large proportion of cases, is to induce pleasurable sensations, as evinced by laughter, dancing, grotesque gestures, &c. When taken for the purpose of submitting to an operation, the mind of the patient, having dwelt much upon the ultimate object to be attained, is calmed and trained to that perfect state of inactivity, which allows the operation to proceed with but slight, if any, disposition to resist, on the part of the patient.

The cerebrum, while under its influence, acts from exciting causes, similar to those which occur frequently during natural sleep; that is, *external circumstances will suggest the idea.* Two cases will serve to illustrate:

Miss F., a young lady about 18 years of age, of nervous temperament, had two teeth removed after two minutes inhaling the vapour; she was at first perfectly quiet, opened the mouth at my request, and allowed the instrument (forceps) to be placed upon the tooth; but as it was necessary to force them well under the alveoli, she made considerable resistance, and appeared to suffer much; she screamed loudly, saying, "*stop pulling.*" In less than two minutes after the teeth were removed, and when the effect had entirely passed off, she assured her mother that she had not been in the least hurt. Upon being questioned as to why she manifested so much distress, she replied that her dream was an unpleasant one; that she thought she was on board a vessel, and perceiving that they were going upon the rocks, she called to the man at the helm to "*stop pulling!*" supposing that the vessel was propelled by this means. Now as the words made use of were a natural outcry, I prefer to attribute to *them* the suggestion of the dream, than to marvel at the coincidence.

A young man, æt. 20, was desirous of having a painful *molar* of the lower jaw extracted; his doubts were very great as to the possibility of destroying sensation; but still desired the experiment. For this operation I used the German Key; he manifested considerable pain; carried his hand to the mouth; swayed the body forward and back, as in much agony. I asked if it hurt him much; he said, "*indeed it did.*" I then requested him to tell me if the tooth was out; he said, "*no.*" Here I made the remark that it was a humbug; he immediately replied that "*it was a humbug*"—that "he did not believe it could be done"—"expected to be imposed upon when he came." At this point he recovered consciousness; smiled when I showed him his tooth; assured me that he suffered *no pain whatever.* Upon my asking him why he called it a humbug, he denied having said so; clearly illustrating that his ideas for the moment were dictated by my method of treating the matter.

From various experiments, I am satisfied that it is by no means necessary to produce *entire unconsciousness*, in order to act suf-

ficiently upon the sensorium to allow of any operation being performed, of not more than two or three minutes duration. Several recent cases have been so treated by me that my patients were perfectly aware of their position; having a full knowledge of every process in the operation; and expressing themselves, invariably, as much delighted with the result; one stating that "*it felt like extracting the tooth from a block of wood.*"

The medical properties and uses of sulphuric ether are well described in Wood and Bache's Dispensatory, page 810: "A powerful diffusible stimulant, though transient in its operation." "It is also esteemed anti-spasmodic and narcotic." "Its vapour, when breathed, produces a transient intoxication, resembling that caused by respiring *nitrous oxide*, but dangerous if carried too far" "It is beneficial in some stages of low fevers; likewise good in nervous headache, unattended with *vascular fulness*—some stages of hysteria; and generally in nervous and painful diseases, which are unaccompanied by inflammation." "In catarrhal dyspnœa and spasmodic asthma, its vapour may be inhaled with advantage. In nausea it is given as a cordial; likewise in cramp in the stomach, &c.

From this abbreviated quotation from the above-mentioned work, it will be seen that the medicinal virtues of the article under consideration, have been well understood by the profession for a long time; and that it is esteemed an agent of so much potency, as to be used with much caution, even by the faculty; hence I am at a loss to comprehend the validity of a certificate, emanating from the hands of *one* quack authorising another of similar pretensions to administer it under any circumstances whatever. And should any accident occur in this view of the case, I trust that the *medical* and *legal* world will know how to discriminate.

I would not be understood as speaking lightly of all those gentlemen engaged in the dental art, who may not be provided with medical diplomas. There are many such, whose work show them to be highly deserving of public confidence; and it is my belief that all who may be desirous of employing this agent, will be so led in their studies, physiological and pathological, that they will sooner or later demand and receive such testimonials as must serve to elevate our much abused and down-trodden profession.

It is much to be hoped that some attention may be bestowed upon this subject by our medical colleges: suffering humanity demands that the whole question be properly investigated and put upon such a footing as will secure to the community what Dr. Bigelow, in his article of the 18th Nov., Boston Med. and Surg. Journal, seems so desirous of accomplishing—A SUITABLE GUARANTEE AGAINST ITS ABUSE.

BIBLIOGRAPHICAL NOTICES.

Julii Vogel Icones Histologiæ Pathologicæ Tabulæ Histologiam Pathologicam illustrantes viginti sex tabulæ, continentes ccxci figuras, quarum cclxx ad naturam delineatæ sunt. Lipsiæ, 1843.

Erlauterungstafeln zur Pathologischen Histologie mit vorzüglicher Rucksicht auf sein Handbuch der pathologischen Anatomie herausgegeben von [Dr. JULIUS VOGEL, ausserordentl. Professor der Medizin in Göttingen. Sechs und zwanzig Tafeln, mit 291 Figuren, wovon 270 nach der Natur gezeichnet sind. 4to. pp. 128. Leipzig, 1843.

The Pathological Anatomy of the Human Body. By JULIUS VOGEL, M. D. Professor of Clinical Medicine at the University of Giessen. Translated from the German, with additions By GEORGE E. DAY, M. A. and L. M. Cantab. Member of the Royal College of Physicians; Physician to the Western General Dispensary; Lecturer on Histology and Animal Chemistry at the Middlesex Hospital Medical School; Member of the Pathological Society of London, and formerly Senior President of the Royal Medical Society of Edinburgh. Illustrated by upwards of one hundred plain and coloured Engravings. 8vo. pp. 587. London, 1847.

In the last volume of the Examiner, (p. 239,) we heralded the advent of the "Icones" of Vogel—the first work on histological pathology that had been issued. The "Pathological Anatomy of the Human Body" by the same author, of which we have before us the translation by Dr. Day, is illustrated by plates taken from the "Icones;" and is, as the translator remarks—or rather implies—the only work in the language that embraces the recent discoveries effected by chemistry and the microscope. It is a treatise on general pathological anatomy; and, we are told, will very shortly be followed by another, devoted to the consideration of pathological changes affecting special organs.

The work consists of an Introduction treating of the relations

of pathological anatomy to the other departments of medical science; and of ten chapters, which consider—I. The abnormal development of gaseous matters—Pneumatoses. II. Abnormal collections of aqueous fluids—Dropsies. III. Pathological relations of the blood. IV. The general relations of pathological epigeneses, [new formations.] V. Special relations of pathological epigeneses. VI. Pathological changes in the physical properties of the tissues and organs of the body. VII. Combinations of morbid elementary changes. VIII. Independent organisms in the human body—Parasites. IX. Congenital modifications of the human body—Malformations. And X. Changes occurring in the body after death—Post-mortem changes.

It is obviously impossible for us, in the space we can assign to this notice, to examine into the views of the author on all these important subjects; but we may refer to a few. Under Pneumatoses he properly remarks, that gas may be developed in the human body partly from food in the act of decomposition in the intestinal canal, and partly from the decomposition of the constituents of the body itself. He has no doubt, too,—nor have we,—that it may be actually secreted by different parts of the frame.

"Thus, Magendie and Girardin assert, that on confining a portion of the intestine of a live dog between two ligatures, in the course of some hours the included portion was found full of air, which escaped with a hissing sound on making an incision.* In the intestinal canal of swine we sometimes meet with considerable accumulations of gas between the layers forming the walls of the bowels. Sir Francis Smith† has described an interesting case of the development of gas in man, which deserves a full notice. He states—"On the 12th of May, 1840, I was consulted by a gentleman, who told me that he often suffered from an enormous development of gas in the stomach, which he discharged by eructation: that he likewise, occasionally, experienced a development of gas from the bladder, and that his skin acted in a similar manner, as he had observed in the bath. On the morning of the 15th, I found my patient in a bath at 79° F.

* Magendie et Girardin; Recherches physiolog. sur les gaz intestin. Paris, 1824. p. 24; Lobstein, Path. Anat. Vol. 1, p. 138.

† Dublin Med. Journal, January, 1841. p. 454.

His breast, shoulders, abdomen, and hands, were literally covered with minute bubbles of gas. On being questioned, the attendant at the bath stated that he had never previously witnessed anything of the kind. On removing the hands and arms from the water, the air bubbles disappeared, but gradually returned on again immersing those organs. The bubbles were of the size of a pin's head. On wiping them off, they disappeared, but gradually formed again.

"In opposition to the above observations of Magendie and Girardin, it may be urged that the gas which was developed might probably have arisen from the decomposition of remnants of food in the inclosed portion of intestine, or that the portion of gut becoming distended by peristaltic motion had imbibed air from the peritoneal cavity, or from the adjacent portions of the intestinal canal; and similarly the escape of air from the stomach and urinary bladder, in Smith's case, admits of the same mechanical explanation as has been given in a previous page. Not so, however, the escape of air from the skin: the fact that all bodies, when immersed in water, give off a little entangled air, affords no explanation of the continuous evolution of gas from the skin: neither does the accumulation of air occasionally noticed in the intestinal canal of swine seem to admit either of a mechanical or chemical solution. If we are asked for the particular causes of these developments of gas, I confess I can give no satisfactory reply. No secretion of gases occurs in the human body in a normal condition; for the development of gas in respiration is a purely physico-chemical proceeding, and is in exact accordance with the laws of displacement and diffusion of gases, as has been recently proved by Valentin and Brunner;* and, probably, the same law holds good for the development of gas through the skin. We can only refer to the analogical proceeding in fishes, where we find an actual secretion of gas in the swimming-bladder, and must, for the present, defer all further questions respecting their causes or pathological indications." p. 32.

The most important deviations in the condition of the blood, are described to be as follows:

"1. Its physical and chemical characters may undergo alteration. It may be either thinner or thicker than usual, and its colour may be affected. The blood-corpuscles may appear changed. The proportion of its constituents to each other may be altered, and it may contain matter not normally existing in it, as sugar, free lactic acid, &c.

* Valentin, Lehrb. d. Physiol. d. Menschen, vol. 1, p. 559.

"2. Its quantity may be increased (hyperæmia or polyhæmia) or diminished (anæmia or hypæmia.) This increase or diminution may either be general, extending to the whole organism, or local, and restricted to particular parts of the body.

"3. It may be effused in consequence of laceration of the blood-vessels, into the interstices of the parenchyma of certain organs, or into some of the cavities of the body, constituting extravasation.

"4. The hæmatin may, by a process of decomposition, become dissolved, and then be imbibed by the tissues." p. 59.

The blood also becomes changed by the absorption of *ferments* and other extraneous matters, by which its character is at times essentially altered; and this, after all, is one of the most important considerations to be borne in mind in regard to the blood as a source of disease, and as suggesting methods of medication in various pathological states now properly esteemed of blood-origin. The pathological relations of the blood are, however, not easy of appreciation; but, for that very reason, they should be more closely investigated.

From the chapter on Independent organisms in the human body—Parasites—we extract the following in relation to *Epiphytes* or parasites derived from the vegetable kingdom.

"All the parasitic plants which, up to the present time, have been observed in the human organism, belong to the lowest forms of vegetation—the algæ and the fungi. They are all very minute, so that, to the unaided eye, the greater number are totally invisible, and others are only perceptible when accumulated in large masses. In order to recognize their peculiar structure, and thus to arrive at a more accurate diagnosis, the microscope is invariably necessary, and very high powers are often required. They are found either upon exposed surfaces, namely, upon the skin and mucous membranes, or floating in the fluids of the body. I am acquainted with no authentic case in which they have been observed during life in the parenchyma of human organs. Respecting the origin of vegetable parasites, there are the same two different views which have been noticed in relation to the origin of parasites generally. Whilst, for instance, Kützing,* who has devoted much of his attention to the lower algæ, maintains, that their origin by repeated spontaneous generation is possible, others limit their origin to the mode by

* Phycologia generalis. Leipz. 1843. p. 129. &c.; or his remarks in Erdmann's Journal f. prakt. Chemie, 1837, vol. xii. p. 391.

propagation. Although a positive decision of this disputed question may at present be impossible, it nevertheless appears to me that there are overwhelming reasons in support of the view that they invariably owe their origin to propagation alone. These reasons are chiefly founded upon the researches of Schwann on fermentation, upon similar investigations of Holmholtz,* and upon others which Dr. Merklein has abundantly instituted upon this subject, all which show, that under conditions which otherwise prove favourable to the formation of fungi and algæ, these do not present themselves, when the possibility of the transference of uninjured germs is precluded. Moreover, all the parasites hitherto observed increase in enormous ratios by means of germules or spores: the latter are so infinitely numerous, so minute, and maintain their germinating power so tenaciously against the most common external agents, that by means of water and currents of air they certainly become universally diffused, and can, therefore, develop themselves wherever they meet with favourable conditions. That we have hitherto, in most instances, failed to demonstrate the origin of fungi by transference of germs, can be no argument against this mode of propagation; for, even in the most careful examination, certain fungus-spores, whose diameters are sometimes less than the 1000th of a line, may, and indeed always will escape the notice even of the most practised observer. In some cases the transference of parasitic fungi, or of their spores, from one subject to another, becomes facilitated by distinct relations, as immediate contact, &c., as may occur in porrigo, in some forms of impetigo, mentagra, &c. These are the cases which are especially regarded as contagious. In general, however, peculiar conditions appear requisite for the development and increase of the transferred germs—conditions which are in general only realized by pathological relations. It appears, for instance, that the surface upon which they are to develop themselves must in general, if not always, be in a certain state of chemical decomposition (putrefaction or fermentation;) as, indeed, we find that externally to the human and animal organisms, most fungi are developed only on putrefying substances. Experience shows us, that parasitic fungi are especially liable to occur on foul ulcers, and probably only exist on the skin or mucous membrane in the cases where these are furnished with a layer of decomposing exudation. Parasitic plants have so far a diagnostic value, that they indicate that a process of decomposition is going on, however locally circumscribed it may be. Hence it follows that they do not become developed at all spots on which the germs are deposited: their growth indicates a certain morbid disposition. This view

* Müller's Archiv. 1843, p. 453, &c.

is opposed by the results of experiments made with the view of showing that parasitic plants can be transferred by inoculation to apparently healthy organisms, and then give rise to morbid phenomena: thus, for instance, Hassal* was able to transfer, by inoculation, parasitic fungi from diseased to healthy lettuces, in which they produced the same disease, (softening of the stem.) These cases, however, prove but little: they merely show, that in some instances the disposition to fungoid development need not be great; and they are, moreover, open to the objection that the plants which were inoculated having, perhaps, the same *habitat*, and living under similar relations, already bore within them the morbid disposition." p. 428.

Dr. Vogel then describes the different fungi found in animal fluids—the yeast plant, and sarcina ventriculi; and next the parasitic fungi found on the integument, and its appendages, of man—those of porrigo, mentagra, plica polonica, and of the mucous membranes; after which he treats of the different parasitic animals; terminating with a learned view of malformations, in which he includes the different forms of monstrosity.

The plates, ten in number, are well executed, and the whole work is exceedingly instructive. It indicates on every page that the author is a well read, painstaking, and accurate observer; fully aware of what has been done in other countries as well as his own; and always anxious to do justice to his brethren who have been engaged in the same labours. We shall look with anxiety for the promised volume on special pathological anatomy, which we doubt not will be worthy to take its place alongside the one before us.

Dr. Day—the translator—appears to have executed the duty—if not elegantly—faithfully. He modestly states in the preface, that the additions he has made are trivial and unimportant, with the exception of the plates and their explanations. "These," he remarks, "are almost entirely selected from the author's 'Icones Histologiæ Pathologicæ,' and will, I trust, be found valuable aids to the clear understanding of the subjects they are intended to illustrate." p. xx. We wish he had added "Tabula xii" of the "Icones"—"*Epizoa atque Entozoa Hominis*," in which the different parasites are delineated. The other plates,

* Froriep's N. Notizen. Oct. 1843, p. 54, &c.

referring—as they do—to lesions of special organs, will doubtless appear in the next volume.

We are glad to find, that this valuable treatise is about to be reprinted in this country by the enterprising house of Lea & Blanchard of this city.

Medical Instruction in the United States: an Address delivered to the students of the Philadelphia Associa ion for Medical Instruction, at the close of the Session of 1846. By Alfred Stillé, M. D., Lecturer on Pathology, and the Practice of Medicine.

In this address, Dr Stillé controverts the assertion of Professor Paine "that American physicians *greatly surpass* all other nations, not only in the *decision*, but in the *success* of their practice," and argues that in attainments, so far from being equal to those of the different nations of Europe, they are greatly behind, and therefore cannot possibly *surpass* them in *decision* or *success* in the treatment of disease.

After contrasting the qualifications for entering upon the study of medicine, demanded in various sections of Europe, with the looseness which prevails in the United States, the lecturer makes the following statement:

"After all the preparatory study we have described, what term of attendance on medical lectures is required of European students? In Austria and France *fifty* months; in Prussia and the secondary states of Germany *forty* months; in Great Britain and Ireland *twenty-four* months; while in the United States, we undertake to produce a competent physician in *eight* months, or one-third of the time deemed necessary by the lowest of the European schools."

In this statement the system of medical education pursued in the United States, it strikes us, is not quite fairly compared with what obtains in Europe. With us, *three years* study we believe is demanded by all the colleges, including attendance on lectures. The student in his attendance on lectures, instead of being confined to two or three subjects in different years, thus extending the term to four or five years, is occupied with all the branches at once, so that in two courses of four months each he may hear as many lectures on certain subjects as would consume double

the period of time when but half the number are given. Whether the number of subjects taught simultaneously is more than the mind of an industrious student can master is another question. Every one, who attends but two lectures a day, will not learn more of these particular subjects than others who are engaged with six; and therefore, according to our republican notions of justice, the industrious man, who can acquire a competent knowledge of his profession to commence the practice of it in *three* years, should not be subjected to the expense of a protracted pupilage, because the drone and the dolt may require *five* or *seven*. With us, it must be recollected, no part of a medical student's expenses are borne by government, as in continental Europe, and in the yet infant state of our country the means of parents generally are not adequate to great expense in the education of their sons; nor does government, in most of the states, afford to the regular physician any protection against competition from the uneducated.

There is a wide difference in these respects between our situation and that of the old institutions and despotic governments, to which Dr. Stillé refers as patterns for our imitation.

Under the circumstances in which we are placed, it would be both unjust and impolitic to prescribe a longer time or greater outlay than experience may show to be indispensably necessary for the accomplishment of the desired object. What may be the shortest time necessary is a question about which men of equal experience will differ; but as the object of all hese requirements is to insure a competent amount of knowledge for the safe and judicious exercise of the office of a physician, and as this can be arrived at by a proper examination, *and in no other way*, there ought to be no difference of opinion on this point. If every aspirant for admission into the ranks of the profession were subjected to this test, there would be little occasion for any other. There need be no inquiry *where* he got his knowledge, nor how *long* he was about it. But here lies the difficulty. The completeness of the examination must depend upon the character of those who are to conduct it. Who shall these be? In order to arrive at a correct appreciation of this matter, we must first look to the form and operation of our government, for no voluntary or self-constituted board, whether examiners or

those by whom they are appointed, can exercise any effective control or jurisdiction in the case. Of this fact, there can be no doubt. The federal government possesses no power under the constitution to regulate the business pursuits of the citizens of the States. Every thing of that kind is left with the States respectively. This is the practice as well as the theory of our government. Every state in the union, then, possesses exclusive power over this subject within its limits. But most of the states have refused, absolutely, to restrict the practice of medicine, or to prescribe any qualifications whatever for those practising it, leaving to the common law the task of guarding their citizens by suits for malpractice.

The states respectively have the power, and many of them have exercised it, of establishing colleges for giving instruction and granting degrees. Will these colleges surrender the business of teaching to other and irresponsible associations? That would be to neglect and refuse to perform the duties of a public trust, for which the law has instituted them; and if the existing faculties were to take that course, there is little doubt but that the trustees who govern these institutions would soon find other occupants for their chairs, even among those most eager for reform.

Will the faculties and trustees of the colleges decline to grant diplomas or testimonials of competency to their pupils, whose deportment and acquirements have justly earned them? That is not likely. It would be surrendering the common privilege possessed by all men, of rewarding merit. It would be denying to themselves the right possessed and exercised by every school master and master mechanic, of testifying to the good conduct and proficiency of their pupils and apprentices. Until some legal enactments can be had, prescribing who may practice, and by whom they shall be examined, which is not likely to occur in many of the states in any short period, we apprehend that the present system of examination will continue, and that the character of those who shall be recognised as members of the medical profession will depend on the more or less general diffusion of education and the character of the professors in the different medical schools; whilst the character and fitness of the latter will depend upon whether the honors and emoluments of

their stations shall afford adequate inducements to properly qualified individuals to accept the appointments. That such will continue long to be the case may be doubted, when we see the facility with which charters are obtained, and the genera rage for engaging in the business. If the system of medical education is to be improved, and the respectability of the profession maintained, the number of medical colleges must be limited to the actual wants of the community. How this is to be attained it is difficult to say. Most likely the college fever will be allowed to run its course, until a crisis ensues from the complete exhaustion of all means of support. In some instances, like too many plants in one parterre, some will wither and die, whilst others, deriving additional strength and support from their decay, will bring forth better and more abundant fruit.

Notwithstanding the unfavourable picture of us painted by Dr. Stillé, we very much doubt whether we are really so much worse off, or the physicians of the United States are in practical tact and usefulness so much in arrear of their European brethren. Take, for example, the following sketch of matters in England, quoted by him from a work by Mr. Surgeon Wilde, of Dublin: "In England, with few exceptions, (and even in those exceptions the kind of instruction is very meager) there is little or no preparatory education required by the different colleges and licensing bodies. The student is at perfect liberty to choose what lectures, or how many, he will first attend; the object being not how he can best prepare his mind by initiatory degrees, for the more mature branches of study, but how he can soonest, easiest, and cheapest, become possessed of the *certificates of attendance* on the lectures he has never heard. There are no tests required as to his knowledge of any of the subjects he is *supposed* to study till the hour of his examination—and when this examination does arrive, the chances that he is never asked a question, except upon anatomy and surgery, and a little physiology, are, in the chief licensing institutions of Great Britain, so slight as almost to amount to a certainty."

If there is any institution for granting degrees in the United States where the business is conducted as badly as this picture represents, we are wholly ignorant of it.

But the author of the lecture says they manage things better

in France, in Prussia, and in Austria. The two last of these governments are units,—absolute monarchies; and can therefore enact what edicts they please, and enforce them throughout their entire kingdoms; which makes a wide difference between their condition and ours. But are the medical men of these countries so much superior to those of Great Britain? Who among all their physicians has done more for our science than Sydenham, Harvey and Jenner; of their surgeons, who more than Pott, Hunter, Cooper, and Brodie; among their chemists, who more than Cavendish, Davy and Dalton? We are aware that a few bright examples are not fair representatives of the whole; but how is it with the mass? Are the practitioners of Great Britain inferior in skill and capacity, as a general rule, to those of France and Germany? We think Dr. Stillé, with all his predilections on this subject, will not assert it. Great learning and the capacity for great usefulness do not mean one and the same thing, nor are they always associated in the same individual. A certain amount of learning is unquestionably essential for a physician;—as to how much, and on what subjects, apart from that of the science itself, much contrariety of opinion exists. Dr. Stillé would undoubtedly require, as a part of his preparatory education, that a student of medicine should be well versed in the Greek and Latin languages; and yet Dr. Rush, in an introductory lecture delivered several years after that quoted by Dr. Stillé, argued that the time employed in their acquisition is mis-spent, and ought to be devoted to other objects. A gentleman, who is himself a bright example of what learning can confer upon its possessor, is content to say that "the education of the youth who is intended for the medical profession should be essentially that adapted for the well educated gentleman," which is probably as near an approximation to the point as we are likely to arrive at.

It is a misfortune that in all attempts at reform the errors proposed to be corrected and the advantages to be gained by the change, are equally exaggerated in the minds of those engaged in the enterprise. They too often see only what seems *desirable:* the *practicable* is overlooked, and they forget that alteration is not always improvement.

Whatever may be said of the system pursued in France,—in point of *learning* the members of the medical profession cannot be compared with those of Britain. Even in professional qualifications, with a few bright exceptions, they are behind our own countrymen. Too often, their views and attainments are limited to some specialty, which, in the estimation of the individual, comprises the whole circle of knowledge.

The lecture before us derives importance at the present moment, beyond what is ordinarily due to a well written essay by an estimable individual, from the spirit of reform which has gone abroad among the profession in this country, the promptings of which are to be manifested in the proceedings of the National Medical Convention to assemble in this city in May next. From the diverse objects contemplated by those who are to take a part in the proceedings of the Convention, and the discordant views entertained and already expressed on many points, it is difficult to form any idea of what will be the results of its deliberations. If all utopian schemes be discarded, and none but such as are practical adopted, good may result. For ourselves, we neither anticipate so much good, nor apprehend so much confusion and evil from its proceedings, as many of those who are arranged on opposite sides. None have laboured more earnestly than ourselves, in times past, to elevate the standard of medical education in the United States, nor does any one more sincerely desire it now. On this point our feelings have undergone no modification in the lapse of time and the change of circumstances; but our knowledge of the difficulties that lie in the way is increased, and with it our hopes and anticipations of great results are diminished.

The burden of complaint in the lecture before us, as well as in the mouths of all who are most earnest in the movements on this subject is, that the courses of instruction given in the colleges are not sufficiently numerous and complete, and that the standard of graduation is too low,—forgetting altogether that a very large number of the practitioners throughout the country attend no lectures at all, and a still larger number never graduate or submit to any examination whatever. Now if all could be induced to attend lectures and demonstrations, and undergo an

examination, no one can doubt that it would be the greatest of all reforms, as regards the interests of humanity, and the honour of our profession. The great and lamentable error of the existing state of things is, not that they who graduate are insufficiently instructed, but that so many engage in practice who have received little or no instruction at all. It is a serious question, whether any measures that would subject the student to a greater expenditure of time and money to obtain a degree, would not increase the number of uneducated practitioners, and in this way reduce rather than elevate the general standard of medical education in the country. If some means can be devised to require every man to submit to examination before entering into practice, it will do more to improve the respectability and usefulness of the profession, than any and all other means we have heard suggested for that purpose.

The practical scheme of improvement in medical education proposed by Dr. Stillé, at least as a beginning, notwithstanding his somewhat enthusiastic reasoning on the subject, is far from being so unfeasible as many we hear proposed. It is as follows "I will venture to state what reforms appear to me most desirable, and, at the present time, most feasible. And first, the prolongation of the lecture term from four to six months, without greatly increasing the number of lectures beyond that already delivered, in order to give the student time to think, read and attend the hospitals. Subsequently the entire term of study might be prolonged from two to three winters; an attendance, is now required on two courses only of subjects named in the existing curriculum, and the student restricted during the first year to the lectures on anatomy, chemistry, physiology, and materia medica. In the second or third year, the instruction might include several departments not now studied, such as general pathology, morbid anatomy, medical jurisprudence and hygiene, of which one course might for the present suffice."

We have no doubt whatever that this is quite as much as, and probably more than, can be effected; but will the advocates of reform be content to stop here? Will not many of those who have recently engaged in the cause with hot haste, be like the boy with the filberts,—grasp more than is compatible with success? We greatly fear so.

Contributions to the Natural History of the Alligator, (Crocidilus Mississippiensis) with a Microscopic Addendum. By Bennet Dowler, M. D.

The New Orleans Medical and Surgical Journal of November, 1846 contains an article under this head, which has been reprinted and constitutes a pamphlet of thirty pages, abounding in curious and interesting matter.

We have several times had occasion to notice the labours of Dr. Dowler, and to speak of the strikingly original and pains-taking character of his researches. The present essay, although on a widely different subject from those heretofore noticed, manifests the same independent and investigating spirit, and from the statements it contains in relation to the anatomical structure and habits of the alligator, so different from the history of the animal given by naturalists, must be regarded with much attention by all who feel interested in this branch of natural science. Contrary to what has been asserted, Dr. D. maintains that the alligator is identical with the crocodile; and that the varieties found on the Nile, the Ganges, the Mississippi, &c., exhibit only the modifications caused by climate.

Speaking of the Alligator, he observes: "The *upper jaw* is wider than the under, which it overlaps. The latter has forty teeth, none of which are *grinders*, as asserted by Professor Owen —none are cutting or incisor teeth, as they are described by Goldsmith. The teeth of the upper jaw are similar in number and structure." * * * "The form and situation of the dental organs, together with the osteological configuration of the jaws, render *grinding* operations quite impossible. The animals found in the stomachs of alligators, show that their prey is killed by penetrating bayonet-like wounds, and swallowed without mastication. The crushing and prehensory power of the jaws and teeth is as remarkable as it is unquestionable.

"Herodotus, Pliny, Aristotle, and many more modern *savans*, including certain French academicians, assert that the upper jaw moves independently of the head, though both are known to constitute a continuous mass of bone, without any flexible articulation. I have for hours forced the jaws assunder by levers, elevating the upper jaw, and with it the head. The cranium, and the superior

maxillary bone constitute a continuous pyramidal mass of osseous matter, the base of which is the skull, and the apex the muzzle."

The author gives a very full and graphic account of the various organs of the animal's body, in which he often differs widely from former historians; and likewise an interesting account of its habits, in which he certainly represents it in a much more *amiable* light than we have been accustomed to view it.

Hand-Book of Human Anatomy, general, special, and topographical. Translated from the original German of Dr. Alfred Von Behr, and adapted to the use of the English Student. By JOHN BIRKETT, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Guy's Hospital. Demi 8vo. pp. 487. Lindsay and Blakiston, Philadelphia, 1847.

This is a reprint of a recent London publication, and time enough has not yet elapsed since it assumed the English dress to determine the rank it is to hold among the treatises on the same subject now before the profession. As anatomists and experimental physiologists, our German brethren have no superiors at the present day. They possess, besides genius, a patient and plodding industry that accomplishes wonders in matters of detail, and consequently it is to them that we are indebted for a large amount of our present advanced knowledge of miscroscopical Anatomy. The present work, although excessively condensed, contains many evidences of the traits we have mentioned. It was not originally published as an isolated volume, but is one of a series entitled "The Pocket Encyclopædia of the Medical Sciences," by Dr. Von Behr, and Dr. Minding, and now in course of publication at Erlangen. We cannot say that it is calculated to supersede the more extended treatises on the various subjects it comprises, but as a *remembrancer* for the physician, and guide to the student while prosecuting his studies in practical anatomy, it appears to us to be exceedingly well adapted.

The American publishers have done credit to the work and to themselves, by the superior manner in which it is brought out. Too often an author is insulted and his book degraded by the beggarly dress in which it is sent forth by the publishers—a charge, we are happy to say, rarely applicable of late years to Philadelphians.

Summary of the Transactions of the College of Physicians of Philadelphia. Vol. 1. From Nov. 1841 to August 1846. 8 vo. pp. 461.

During the last five years it has been the custom of the College of Physicians to publish quarterly summaries of its proceedings. These have now become sufficiently extensive to make a good sized volume, and are bound up in that form for the use of the members and such others as may desire to purchase it.

Beside reports on most of the branches of the science, made at stated periods by Committees, these "transactions" contain the discussions of the members on the various interesting points presented before the College, either in the reports or oral communications, and express, generally, the views and experience of the speakers on the doctrines and practice of the day. On various occasions we have enriched our pages with extracts from these quarterly reports, and find that many of our brother journalists have done the same, which is sufficient evidence of the value of the matter they contain.

THE MEDICAL EXAMINER.

PHILADELPHIA, JANUARY, 1847.

THE BULLETIN OF MEDICAL SCIENCE, EDITED BY JOHN BELL, M. D.

The December number of this Journal contains the *farewell address* of its Editor, in which he announces that "THE SELECT MEDICAL LIBRARY and THE BULLETIN OF MEDICAL SCIENCE will cease to be published after this date." "These instruments," says the Editor, "through which we have long discoursed with our professional brethren, will no more give utterance to our exhortation, our praises, our monitions and rebukes: our voice, henceforth, comes down to the key and pitch of those who may have, hitherto, listened with some attention, not unmixed, perhaps, with some deference." Those who, like ourselves, have long been in the practice of reading

maxillary bone constitute a continuous pyramidal mass of osseous matter, the base of which is the skull, and the apex the muzzle."

The author gives a very full and graphic account of the various organs of the animal's body, in which he often differs widely from former historians; and likewise an interesting account of its habits, in which he certainly represents it in a much more *amiable* light than we have been accustomed to view it.

Hand-Book of Human Anatomy, general, special, and topographical. Translated from the original German of Dr. Alfred Von Behr, and adapted to the use of the English Student. By JOHN BIRKETT, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Guy's Hospital. Demi 8vo. pp. 487. Lindsay and Blakiston, Philadelphia, 1847.

This is a reprint of a recent London publication, and time enough has not yet elapsed since it assumed the English dress to determine the rank it is to hold among the treatises on the same subject now before the profession. As anatomists and experimental physiologists, our German brethren have no superiors at the present day. They possess, besides genius, a patient and plodding industry that accomplishes wonders in matters of detail, and consequently it is to them that we are indebted for a large amount of our present advanced knowledge of miscroscopical Anatomy. The present work, although excessively condensed, contains many evidences of the traits we have mentioned. It was not originally published as an isolated volume, but is one of a series entitled "The Pocket Encyclopædia of the Medical Sciences," by Dr. Von Behr, and Dr. Minding, and now in course of publication at Erlangen. We cannot say that it is calculated to supersede the more extended treatises on the various subjects it comprises, but as a *remembrancer* for the physician, and guide to the student while prosecuting his studies in practical anatomy, it appears to us to be exceedingly well adapted.

The American publishers have done credit to the work and to themselves, by the superior manner in which it is brought out. Too often an author is insulted and his book degraded by the beggarly dress in which it is sent forth by the publishers—a charge, we are happy to say, rarely applicable of late years to Philadelphians.

Summary of the Transactions of the College of Physicians of Philadelphia. Vol. 1. From Nov. 1841 to August 1846. 8 vo. pp. 461.

During the last five years it has been the custom of the College of Physicians to publish quarterly summaries of its proceedings. These have now become sufficiently extensive to make a good sized volume, and are bound up in that form for the use of the members and such others as may desire to purchase it.

Beside reports on most of the branches of the science, made at stated periods by Committees, these "transactions" contain the discussions of the members on the various interesting points presented before the College, either in the reports or oral communications, and express, generally, the views and experience of the speakers on the doctrines and practice of the day. On various occasions we have enriched our pages with extracts from these quarterly reports, and find that many of our brother journalists have done the same, which is sufficient evidence of the value of the matter they contain.

THE MEDICAL EXAMINER.

PHILADELPHIA, JANUARY, 1847.

THE BULLETIN OF MEDICAL SCIENCE, EDITED BY JOHN BELL, M. D.

The December number of this Journal contains the *farewell address* of its Editor, in which he announces that "THE SELECT MEDICAL LIBRARY and THE BULLETIN OF MEDICAL SCIENCE will cease to be published after this date." "These instruments," says the Editor, "through which we have long discoursed with our professional brethren, will no more give utterance to our exhortation, our praises, our monitions and rebukes: our voice, henceforth, comes down to the key and pitch of those who may have, hitherto, listened with some attention, not unmixed, perhaps, with some deference." Those who, like ourselves, have long been in the practice of reading

the productions of his ever ready and well pointed pen, will regret that any circumstances should render it necessary for the able and estimable Editor to retire from a position which education and habit so peculiarly qualified him to fill. His personal friends, however, of which number for nearly a quarter of a century we have had the pleasure of considering ourselves one, recollecting his late severe indisposition, and the causes of it, will hope from the change for a longer continuance of his useful labors, than could have been reasonably expected under the excessive mental occupation to which he was exposed. No one probably enjoyed the pleasures that pertain to an Editors position more than Dr. Bell, or better knew its labours and responsibilities, so graphically sketched in the following extract.

"But if, in thus descending from our 'high estate,' we divest ourselves of the appendages of office, and cease to enjoy its honors, its emoluments, and its collateral advantages, we, at the same time, cast off heavy responsibility and ever-recurring anxieties. Those engaged in the busy walks of life have little conception of the toilsome efforts, and the many trying hours encountered by the occupant of the editorial sanctum,—in the task of selection and arrangement of contemporary materials, and of interweaving them with the learning of the past, so as still to preserve a philosophic texture,—a careful analysis and an impartial adjudication of conflicting claims of discovery and improvement,—the support of modest merit,—and the rebuke of arrogant pretensions."

"Ten years have elapsed since the first publication of the Select Medical Library; during which time, it has been the good fortune of its Editor to make it a vehicle for the dissemination, throughout the length and breadth of the land, of works, many of which adorn our medical literature and have contributed, not a little, to the practical instruction of our medical men, at the same time that they have inspired them with more curiosity, and a desire for a still wider circle of reading and research."

The business relations of Dr. Bell and the publishers, Messrs. Barrington and Haswell, are to be continued, and hereafter his labours, instead of being partly occupied with the journal, will be wholly employed on works destined—we hope—to be of a less ephemeral character.

NATIONAL MEDICAL CONVENTION.

In our *Record* department we have given the names of the gentlemen who have been appointed to represent the Medical Faculty of

the University of Pennsylvania, the College of Physicians of Philadelphia, and the Philadelphia Medical Society, in the Convention to be held in this city in May next; in all twenty-seven. If all the other medical societies and institutions throughout the country shall be represented in an equal ratio, it will certainly be a large assemblage.

As the period at which the Convention is to take place grows nearer, we discover a more general interest manifested in the subject, and a freer expression of opinion as to the feasibility or otherwise of the various schemes likely to be proposed. On another page we have treated cursorily of some points which it is probable will be mooted, and may perhaps advert to the subject again on some future occasion; in the meanwhile we shall be happy to receive from any of our correspondents, temperate arguments on the questions expected to be raised, and especially those to be reported on by committees appointed at the late Convention, held in the city of New York.

GUN COTTON.

This preparation, it appears, explodes at a temperature as low as 140° of Fahrenheit, which renders it much more dangerous to handle than gunpowder. We have heard of some serious accidents happening to persons of skill and prudence, while engaged with it. In one instance, a letter containing a small portion was blown to atoms, from the heat of the wax used in sealing it. In another case, a chemist, whilst drying a few ounces of it in a current of warm air, not exceeding the temperature of 140 degrees, was badly burnt by its explosion.

This circumstance, together with its comparative costliness, renders it probable that, notwithstanding its tremendous power, it will not supersede the old material for ordinary explosive purposes.

NEW MEDICAL ASSOCIATION.

We are gratified to learn that a number of the physicians residing in the northern section of Philadelphia, embracing Spring Garden, Northern Liberties, Kensington, Germantown, and Frankford, are about forming themselves into an association for literary and scientific improvement, and the promotion of good fellowship and sound medical ethics among the members. It is intended to admit none as members but graduates in medicine, excluding all who are practising

or encouraging the various systems of charlatanry, under the mask of reform, and thereby undervaluing the science and skill of regular physicians, and thus bringing the profession into disfavour with the community.

Many of our oldest and most respected physicians reside in the district mentioned, and their association for such praisworthy objects cannot but be productive of good, especially to their junior brethren, who will by this means be admitted to their more intimate fellowship.

TO CORRESPONDENTS AND PUBLISHERS.

We have received several books, tracts, and introductory lectures, which we shall endeavour to notice in our next number.

RECORD OF MEDICAL SCIENCE.

Delegates to the National Medical Convention.—The Medical Faculty of the University of Pennsylvania, have appointed of their number, Drs. Chapman, Jackson, and Wood, to represent them in the Convention in May next.

The Philadelphia Medical Society, at a meeting held November 21st, elected the following gentlemen as delegates to the Convention: Drs. Bell, Emerson, Isaac Parrish, West, Ashmead, Norris, B. H. Coates, Bond, S. G. Morton, Yardley, and Griscom. There is still a vacancy to be filled up by the election of a delegate, so as to complete the number, twelve, authorised by the Society.

The College of Physicians of Philadelphia, at a meeting, Dec. 1st. appointed a delegation to consist of Drs. Hewson, J. W. Moore, S. Jackson (formerly of Northumberland County), Hays, A. Stillé, J. R. Paul, Pepper, Fox, Randolph, C. Morris, Condie, and Bridges.

The Medical Society of New Jersey, which dates its origin from the 23d of July, 1766, and to age adds the merit of high standing among similar associations in the United States has elected delegates to the Convention. The list consists of Drs. Smith and Peirson of Essex County, Marsh of Passaic, Stewart of Morris, Forman of Mercer, Parrish of Burlington, Taylor and Cooper of Camden, Garrison of Gloucester, and Howell of ——.

The District Medical Society of Burlington County has appointed, as delegates, Drs, Cole, Stratton, and Read.

The delegates of the Philadelphia Medical Society, and of the College of Physicians, have been directed, respectively, to make ar-

rangements, in connexion with the delegates that may be appointed by other institutions in the city, for the reception and a suitable place of meeting of the Convention.

The Vermont Medical Society has appointed Drs. Charles Hall, C. W. Horton, A. G. Dana, and Dyer Storer, as its delegates to the Convention.—*Bulletin of Medical Science.*

Report on the Protective Powers of Vaccination.—In April, 1842, the undersigned were appointed by the College, a committee to investigate the protective powers of vaccination; the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the subject of re-vaccination generally. Various obstacles, beyond their control, prevented their performing, at an earlier period, the task submitted to them, in a manner that would have proved at all commensurate with its importance; they have, however, been enabled, at length, to bring their labours to a close, the result of which is here submitted.

The first object embraced in the resolution, under which the committee was appointed, is one of acknowledged interest; it refers to the protective powers of vaccination.

The most obvious and conclusive mode of determining the degree of protection imparted by vaccination against the influence of small-pox, is to inoculate, with variolous matter, the persons who have been previously vaccinated.

At the close of 1801, the first successful efforts were made at vaccination in this city. In the early periods of this practice, until the year 1812, every mean was employed which, at the time, was deemed best calculated to determine whether the process of vaccination would afford full protection against the small-pox. The first step generally taken, after having observed the genuine character of this vaccine pock, was to insert a portion of variolous matter, and to note its progress. Where due attention had been paid to the selection and insertion of this matter, a small red pimple appeared about the third day. On the fifth day this was converted into a purulent crust, surrounded by inflammation, generally of no great extent, which, after this period, began to fade, and was rarely perceptible beyond the eighth day; it left no trace beyond the tenth. The full and distinctive character of the variolous pock was not observed on these occasions. The persons thus treated were not affected with fever, or any general disarrangement of the system, nor was any eruption observed on the skin. The persons having been submitted to this test, were next exposed to the small-pox in the most direct manner, often by placing them in the beds with those labouring under the disease, even in its most virulent form. A like immunity attended this experiment.

From repeated observations thus conducted, observing that no instance of small-pox had been communicated to those on whom the operation of vaccination had been duly performed, the profession

ventured, in 1803, to announce the process as one affording equal protection with variolous inoculation.

The reasons for preferring the process of vaccination to that of variolous inoculation could not fail to be appreciated, and were strongly urged in the circulars issued for the public information.

Under the most favourable circumstances, and where every attention had been paid to insure success, many of those who had been inoculated for the small-pox were known to have fallen victims to the disease. The estimate most generally received, and founded on a large experience was. that one in four hundred of the inoculated fell victims to the process; some practitioners were stated to have been more fortunate, and to have lost not more than one in a thousand. On the other hand, of the thousands that had been vaccinated, not a death had been recorded, which could be imputed to this process. The age of the individual, or the physical condition of the other members of the family, constituted no objection to the operation, as the cow-pock could be communicated by the direct application of the virus only; while in the instance of the small-pox, the effluvia emanating from the infected, were known to impart the disease to the unprotected, and under circumstances when it was likely to prove fatal. In addition to the loss of life, caused by the small-pox, even when the result of inoculation, the mutilations which were so often consequent, even when life was preserved, must have been familiar to every one acquainted with the disease, whether casually received or by inoculation.

Unfortunately, the reputation of the Jennerian process has been materially affected by the ignorance of the persons by whom the operation has been frequently undertaken, and by the want of attention on the part of some of the profession in visiting at the proper periods, and recording the phenomena observed. The period when the areola may be expected ought never to be neglected. The evidence that may be obtained from such circumstantial records, will tend to dispel many of the idle reports so freely circulated to the disparagement of vaccination. By consulting such recorded documents, it has been clearly ascertained that the majority of the cases of small-pox ascribed to the failure of the protective process were, in reality, owing to the imperfect manner in which the operation had been conducted. There is abundant evidence recorded in medical books, of persons having suffered from small-pox more than once; where such a peculiarity of constitution exists, it cannot be a matter of surprise that the disease should be occasionally observed after vaccination, even in cases where the genuine and perfect character of the vaccine process has been fully developed. A careful examination of these histories does not exhibit any appreciable difference in the proportional number of such cases, whether after small-pox or after vaccination.

By an act of the Legislature, passed in 1811, to communicate the infection of small-pox by inoculation, or otherwise, has been prohibited, under certain pecuniary penalties. For the four succeeding years, the disease is not recorded in the bills of mortality; and the

mode of most conclusively testing the protective powers of vaccination necessarily ceased. And hence the profession have, since then, been deprived of a measure so intimately connected with the inquiries to which the attention of your committee has been directed.

Touching this very important question, it must be acknowledged that the documents at command are but few; nevertheless those that have been preserved, afford the evidence that, after the lapse of three years, the vaccinated were found no longer susceptible of small-pox by inoculation. Among the persons thus treated, it has been ascertained that an infant, vaccinated within a month, resisted the variolous infection after an interval of the same number of years.

For the want of that full and comprehensive information which our more immediate resources fail to afford, it may prove acceptable if we here present the experiments made by that distinguished and accurate observer, Biot:

"In August, 1826, a number of boys, between the ages of twelve and sixteen years, were inoculated in four places with small-pox virus by Dr. Biot, one of the physicians to the hospital St. Louis, at Paris. A part of these had been vaccinated, and a part had never been protected from the small-pox. In those who had been vaccinated, the insertion of the variolous virus had no other effect than to produce a slight inflammation for two or three days at the points where the matter was introduced. Those who had never been protected were affected differently, and contracted the variolous disease."

In this stage of the inquiry, it appears not irrelevant to notice the diminished mortality from small-pox, as observed in this city, since the introduction of vaccination. Whenever that disease has appeared, it has been viewed as among the severest scourges inflicted on mankind, and the most appalling apprehensions have been entertained by every community which it has visited. The sufferings of those affected with this malady have at all times awakened the most painful and anxious feelings in friends and connections, and called forth the assiduous and unremitting care of the attendants and those administering to the sick. In seasons of epidemic small-pox, the mortality has been observed to be great. In 1721—22, in the town of Boston, five thousand seven hundred and fifty-nine persons were affected with the disease, of whom eight hundred and forty-four came to an untimely death, as publicly announced by the municipal authority of that city. This was a fearful mortality, particularly when we advert to the number of persons inhabiting Boston at that period. In the succeeding year, 1722, the census was taken, indicating a population of ten thousand five hundred and sixty-seven; if, to this, there be added the number who died of small-pox, eight hundred and forty-four, the sum will be eleven thousand four hundred and eleven, as the total population previous to the ravages of the small-pox having commenced. One-half of the inhabitants of the city were affected with the disease. Of those, between one-sixth and one-seventh came to an untimely death, and the city lost nearly one-thirteenth of its population.—*Zabdial Boylston, on Small-pox, p.* 33.

Of those who survived the loathsome disease, many, from the hideous aspect and mutilations caused by the disease, continued through life the objects of commiseration, and too often of disgust.

Laws have been enacted, and rigid quarantines enforced, with the view of preventing the introduction and spreading of the small-pox. In small communities, having little intercourse with other portions of the world, these efforts have proved successful for a season ; but the temporary immunity thus enjoyed has only rendered the subsequent ravages of the disease the more disastrous. The nations engaged in commerce soon experienced the futility of every attempt to insure exemption from the disease ; for though the infected were secluded, and denied all intercourse with those deemed liable to the disease, the poison was found to be frequently conveyed by means of the clothing, and articles taken from the chamher of the sick. For successive ages, the pestilence was submitted to as an inevitable evil, and allowed to extend its baneful influence, annually destroying large portions of the inhabitants of the earth, and in some instances depopulating whole districts.

The deaths from casual small-pox have varied, from circumstances not in our power to appreciate. The character of the seasons, the peculiarity of position and the nature of the intercourse between the infected and those liable to take the disease, have had their influence in determining the malignity and mortality observable in different years.

The materials having relation to the medical statistics of Philadelphia, that can be gleaned from its early history, are extremely scanty and defective. It is only within the present century. and for the period of barely forty years, that any of the reports of the deaths have been publicly made. Prior to this period the records of the interments were confined to particular religious societies, necessarily difficult of access, and, generally, ill adapted to the present purpose. Though restricted to a narrow sphere, and not embracing the entire population comprehended within the city and districts, the registers kept at the Dispensary afford a document which may constitute a proper basis to found the estimate of the advantages gained by vaccination. From the foundation of the institution to the close of 1801, including a period of sixteen years, when variolous inoculation was considered as the only protective process available against casual small-pox, fifty-one persons are stated to have died of this disease, while the entire number of deaths, from various diseases, were seven hundred and one, establishing the proportion to be seventy-three in one thousand, which accords with the most favourable estimates made in Europe, and will hardly be excepted against by those who are the least favourable to vaccination.

In 1807, by an act of the Legislatute of the State, every death within the city and districts, must be reported to the Board of Health, the certificate expressing the disease of which the person has died. From this source, clear and positive evidence may be obtained. From the annual reports during the period of four years, variolous

inoculation still being permitted, it appears that the deaths from various diseases amounted to ten thousand seven hundred and forty-four, of which number, four hundred and twenty-nine were from small-pox. This affords the evidence of a considerable reduction in the proportional mortality from this disease, it being as forty in the thousand; during a period when vaccination had been practised and institutions established for its dissemination.

Since 1811, variolous inoculation has been prohibited by law. During the four succeeding years, not a death from small-pox was recorded. In 1816, there was a great influx of foreigners, particularly from the British dominions in Europe; by these persons the disease was introduced into this city, and proved fatal in that year to no less than ninety-seven persons. It was accompanied with a papular eruption, resembling, in many particulars, mild variola—affecting some of those who were believed to have been protected from small-pox by having previously undergone what was supposed to be successful vaccination; of these, no death is recorded that has come to our knowledge. In 1820, 21, 22, the city again enjoyed an exemption from this malady. This assertion is founded on the fact of no deaths from small-pox, in these years, having been reported to the Board of Health. In 1823, 24, the pestilence again afflicted our city, and the mortality from this source amounted to four hundred and eighty-four.* The fact that a large number of those who had been previously vaccinated with the greatest care, as well as many of those who had previously passed through small-pox by inoculation or otherwise, were attacked during this epidemic with a modified form of small-pox, created considerable alarm in the public mind, and directed anew the attention of the profession to an investigation of the amount of protection afforded by the vaccine disease. Upon the recurrence of small-pox in 1827, the Medical Society of Philadelphia appointed a committee to collect and report to the society all the facts within their reach, in relation to this important subject. The committee immediately addressed a circular to the physicians of the city and county, containing a series of interrogatories calculated to elicit information in relation to the protective powers of vaccination. The report of this committee, embracing the facts collected by them, was made to the society in 1828, and was of such a character as to renew the confidence of the profession in the protective powers of the vaccine infection.† Notwithstanding, it was admitted that in many instances, those who had been previously vaccinated would be liable to become affected, during the prevalence of variola, with a modified, and, usually, mild form of small-pox, yet it was shown that the public are highly benefitted by the practice of vaccination, which

*For an account of the epidemic of 1823, 24, we refer to a very able paper by Drs. Mitchell and Bell, in the North American Medical and Surgical Journ. vol. ii. p. 27 et seq.

†For a copy of this report, see North American Medical and Surgical Journal, vol. v. page 400.

was, in every sense, to be preferred to inoculation, and hence, that humanity and sound policy imperiously demanded its continuance.

In succeeding years, with occasional mitigations, Philadelphia has suffered more or less from the disease. Taking the whole period since variolous inoculation was prohibited, the mortality from all sources has amounted to one hundred and forty-three thousand and seventeen, of this number, two thousand four hundred and ninety-seven are referred to small-pox; by which it will be perceived that the proportional mortality has been reduced to eighteen in the thousand.

We have thus endeavoured to exhibit the degree of protection against small-pox afforded by the process of vaccination. The evidence adduced does not depend on individual experience, but rests on the broad basis of the public records, into which no undue bias can have entered.

It must be conceded, that the anticipations of the warm friends for vaccination, that this process would lead to the extirpation of the small-pox, have not been accomplished. In making this concession, the question necessarily arises, whether the requisite precaution, for preventing the intercourse of those affected with small-pox, and those still susceptible of the disease have been duly enforced. The remarks of one who took a lively interest in arresting the progress of this loathsome malady, appear to be particulary pertinent, and to deserve the earnest consideration of every individual desirous of removing from the community this dreadful scourge. The words of Dr. Haygarth are, "the discovery of vaccine inoculation by Dr. Jenner is the most fortunate and beneficent improvement that medical science ever accomplished. It does not, however, preclude the necessity of investigating the nature of the variolous poison, and of considering by what regulations its propagation may be prevented. In order to secure the unthinking multitude from this destructive pestilence, measures to prevent the casual *small-pox* should every where accompany vaccine inoculation; without such protecting care by the wise and hnmane part of society, this mortal malady would, for ages, lurk unheard of and unsuspected, to the annual destruction of many thousands. No town, no village, not even a single solitary house would enjoy perfect safety from danger."

The foregoing, your committee beg leave to present, as a solution of the first question submitted to them by the College.

The occurrence, year after year, of the small-pox in the city of Philadelphia, and in other communities, and the frequency with which those who had been vaccinated were attacked with a more or less severe, though generally modified form of the disease, induced many to suppose that the protective power of the vaccine infection was only temporary. The question as to the necessity of re-vaccination now arose, but whilst few practised it, many condemned it as useless, and calculated to weaken public confidence in the protective powers of vaccination. Others, however, maintained that, as there was no certain criterion by which the protective powers of the primary infection

could be established with absolute certainty, re-vaccination was necessary in all cases in order to test the efficacy of the first operation. This opinion very naturally obtained importance from the fact, that few cases of modified small-pox were known to have occurred after a second vaccination, provided the insertion of the vaccine virus produced an action sufficient to prove that it had been taken up by the absorbents; also, from the disease being observed, in numerous instances, to be arrested in families, and in neighbourhoods, where those already reputed to be vaccinated were again subjected to the operation.

When vaccination has been repeated in those who have been previously subjected to the disease, it is found to produce a local affection, marked by very different degrees of intensity. In some, slight inflammation occurs on the second or third day, and then fades away. In others, various degrees of inflammation manifest themselves, followed by a pock or pustule, terminating in a brown or yellow crust, whilst, very rarely, a distinct, regular areola is produced, or the other phenomena of the genuine disease, as will fully appear from the table here annexed.

The subject of repeated vaccination has engaged a large feld of inquiry in different parts of Europe; a very full abstract of the results of which, will be found in the work of Dr. Condie on the Diseases of Children, page 458.

The second question, therefore, submitted to your committee, was to determine the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the necessity and policy of re-vaccination. It is to the first portion of this question that the committee have been obliged, necessarily, to confine their attention. It must be very evident that to test fully the necessity or propriety of re-vaccination, would either require that after large communities shall have been a second time subjected to vaccination, time be allowed in order that they may be repeatedly subjected to the influence of variolous contagion, during the epidemical visitations of small-pox, or that the direct test be resorted to of inoculating with small-pox those who have been successfully vaccinated, at different periods subsequent to the primary operation, as well as after a secondary operation, and carefully noting the comparative immunity from the impression of the variolous poison exhibited by each class of patients.

In order to obtain as wide a field of observation as was in the power of your committee they applied to the comptrollers of the public schools, soon after their appointment, for the privilege of vaccinating the scholars whose parents would consent to the operation being performed; whether they had been previously vaccinated or not; in order to accertain the degree of impression that would be made in each case by a repetition of the operation, and with a view of watching hereafter the effect or influence it may have in preventing the occurrence of small-pox in the subject of our experiments, should an epidemic of that disease again appear amongst us. But the comp-

trollers did not at that time consent to our request, and the investigation of the subject had to be postponed. In the early part of the present year, small-pox again made its appearance and excited considerable uneasiness in the minds of the public. Your committee entertaining the opinion that the period was propitious for a renewal of their application to the comptrollers, accordingly did so, and their consent was promptly given. Circulars were then sent to the parents of the children, attending several of the schools, requesting their permission, which was in most cases readily granted, and every facility was offered to carry into effect the object your committee had in view.

The operation was performed in nine hundred and thirty-one cases; six hundred and thirty-five of whom took on various grades of action; many of these had been vaccinated three, four, and five times before, and stood in relation to small-pox, chicken-pox, and varioloid as stated in the following account:—

Nine hundred and thirty-five persons reputed to have been protected by previous vaccination, having distinct cicatrices on the arm, or by having passed through the small-pox, were subjected to the action of the vaccine virus.

50 did not appear on the days appointed for examination.
294 exhibited no signs of inflammation from the process.
52 of these were reputed to have been previously vaccinated twice.
6 " " three times.
1 " " four times.
14 " to have had the small-pox.
36 " " varioloid.
72 " " chicken-pox.
76 had various degrees of inflammation on the fourth day, which had faded before the eighth day
15 of these were reported to have been previously vaccinated twice.
2 " " to have had the small-pox.
5 " " " varioloid.
26 " " " chicken-pox.
181 had inflammation more or less severe, accompanied by a yellow or purulent crust, on the eighth day.
30 of these were reported to have been previously vaccinated twice.
11 " " " three times.
2 " " " four times.
1 " " " seven times.
9 " to have had the small-pox.
7 " " " varioloid.
50 " " " chicken-pox.
95 had very diffusive inflammation, the pustule still moist on the 8th day.
10 of these were reported to have been previously vaccinated twice.
1 " " " three times.
1 " " " four times.
2 " to have had the small-pox.
4 " " varioloid.

23 of these were reported to have had the chicken-pox.
179 exhibited more or less inflammation and a brown crust on the 8th day,
10 of these were reported to have been previously vaccinated twice.
4 " " " three times.
1 " " " seven times.
8 " to have had the small-pox.
7 " " varioloid.
49 " " chicken-pox.
57 had a pock with various degrees of inflammation; diffused and irregular in its margin on the 8th day.
2 of these were reported to have had the small-pox.
15 " " chicken-pox.
3, viz. a boy and two girls, exhibited a well defined pock and the areola characteristic of the perfect vaccine impression as observed on the 8th day. They are stated not to have been affected with the small-pox, varioloid, or chicken-pox.

From the foregoing observations, as well as from those derived from previous practice, your committee are justified in the conclusion, 1st, that vaccination is the best preservative of human life now known against the contagion of small-pox; and although it has not answered the full expectations of its more sanguine advocates by protecting the system in all instances against at least a modified form of variola, which is the case with the small-pox itself, nevertheless, life is very generally protected by it, and humanity and sound practice imperiously call for its continuance.

2ndly. Patients who have been once fully subjected to the influence of the vaccine infection, lose, in a great degree, their susceptibility to a second infection; the susceptibility diminishing still more at every subsequent vaccination.

3rdly. That portion of the community who have been once successfully vaccinated are in the great majority of cases fully protected from small-pox or varioloid.

4thly. A second vaccination does not insure the system in every instance against an attack of varioloid; neither does second vaccination prevent an impression being made on the system by a subsequent operation.

5thly. Upon the recurrence of small-pox in a family or neighborhood, it is all important that all individuals in regard to whom there is any doubt or uncertainty as to the fact of their having been successfully vaccinated, should be subjected immediately to the operation, this being the most certain means of preventing the spread of the variolous contagion.

Your committee have not heard of a single instance of varioloid having occurred in any of the children of the public schools vaccinated by them, notwithstanding the epidemic was prevailing at the time and subsequently.

D. Francis Condie,
Thomas T. Hewson,
J. Wilson Moore. } *Committee.*

Accompanying this report there was presented a table containing the name and age of each individual re-vaccinated by the committee, the number of times each had been previously vaccinated ; noting those who had been affected with small-pox, varioloid, or chicken-pox ; and the appearance of the arm on the fourth and eighth and twelfth days, with remarks on the result of each case.—*Summary of the Transactions of the College of Physicians of Philadelphia.*

Polypus of the Rectum—Clinical Lecture, by M. Guersant, Jun.—A little girl was lately admitted into the Hôpital des Enfans under the following circumstances :—Two months since, blood was passed in small quantities with the motions, and during the expulsion of the fæces a red tumour was observed to protrude from the anus. When a child presenting these symptoms is brought to a surgeon, it is natural to suppose that the case is one of prolapsus ani : this opinion must not, however, be exclusively adopted ; we have several times detected in such children the presence of polypus in the rectum. It is worthy of remark, that no ancient or modern work on the diseases of infancy has alluded to this form of disease. M. Stoltz, in 1831, was the first to give a history of the symptoms, and two cases only were previously on record : one published in "Hobold's Journal," 1828, by M. Schneider ; the other, by Dr. Lange, of Berlin, in 1776.

The first signs are those above mentioned, viz., sanguineous motions, and tenesmus ; defæcation gradually becomes more and more impeded, in proportion as the polypus increases in size, and is accompanied by violent efforts of expulsion, which force out from the intestine a red, even tumour, at first easily reduced. We have often noticed a sign which we conceive to be of some value—it is the presence of a groove or furrow on the surface of the fæces, caused by the presence of the polypus ; but the issue of the tumour through the anus is the only certain diagnostic sign. During the first period of the complaint the swelling is round, and slightly flattened at its sides ; the external segment is more voluminous than its intestinal portion.

Authors do not agree upon the nature of these growths : some consider them to be of a fibro-cellular structure; others, on the contrary, believe them to be always of a mucous texture. Thus, M. Stoltz thinks, that in many cases, they are the result of frequently repeated prolapsus ani, a portion of mucous membrane incarcerated in the ring of the sphincters becoming congested, swollen, and pediculated after a certain period. Such may be, in some instances, the real mode according to which polypus of the rectum is generated, but there are many exceptions—thus, polypus is frequently observed on mucous surfaces unprovided with sphincter muscles ; besides, prolapsus ani has other well-known results ; let us add, that polypus has been observed in subjects who had never suffered from prolapsus ani. We have usually found these polypi to consist of a mucous sheath borrowed from the mucous membrane of the rectum, enveloping a spongy texture.

So long as the tumours do not issue through the rectum, a hemorrhagic discharge from the intestine, and the nature of the stains of the linen, cannot furnish a positive basis to the diagnosis; the finger must be introduced *per anum*, the pedicle of the tumour accurately circumscribed, and the spot of its insertion precisely ascertained. Although the prognosis must usually be favourable, still the abundance and frequent return of hemorrhage may seriously injure a child's health, and it is therefore necessary to come to a speedy determination when once the nature of the disease has been correctly ascertained. The spontaneous cure can be readily understood; the polypus, gradually expelled by efforts of defæcation, drags more and more upon the pedicle, which daily diminishes in diameter and increases in length, until at last it yields to the frequent repetitions of the efforts; the polypus falls away, and a spontaneous removal of the complaint may be said to have taken place. Perhaps even such polypi may have been the unknown and unsuspecting cause of rebellious diarrhœa, which ceased after their spontaneous expulsion, after medicines of various kinds had previously been exhibited without success.

We do not approve of the use of caustics, because their action is uncertain, and their application in cavities like the rectum is always inconvenient, and sometimes unsafe. Excision we adopt only when the neck of the tumour is very narrow, because even a slight hemorrhage may endanger the life of a child. We prefer to all other methods, simple ligature, because all danger from loss of blood is obviated, and the little patients suffer no pain: in general, when the implantation of the pedicle is not very high, the threads may be simply carried with the finger round the neck; but, in the contrary case, the introduction of the speculum ani considerably facilitates the operation.—*London Medical Times.*

Dislocation of the Shoulder—M. Robert exhibited to the meeting of the Society of Surgery a dislocation of the humerus downwards, artificially produced on the dead subject. The head of the bone rests upon the ridge of the scapula, immediately beneath the glenoïd cavity, in a sort of groove formed in front by the subscapularis, and posteriorly by the long portion of the triceps muscle. The form of displacement had been admitted by T. L. Petit, Boyer, A. Cooper, &c., and M. Malgaigne, in refusing to admit its possibility, had, M. Robert believed, been guilty of error.

M. Malgaigne insisted that M. Robert's artificial luxation was not downwards only, but also forward; the head of the humerus being on the inner side of a line drawn perpendicularly from the glenoïd surface.

M. Chassaignac had collected twelve *post-mortem* examinations of recent dislocation of the shoulder; the head of the humerus was most generally found to lie on the anterior face of the scapula, inside the glenoïd cavity; and at a variable distance from the coracoïd process. Sometimes it may rise as high as the basis of that bony projection;

at other times, it is seated below the glenoïd surface; and in some cases rests upon the axillary margin of the scapula. These differences of position, M. Chassaignac had long since mentioned in his annotations to the translation of Sir A. Cooper's works: he considered them to be of importance, inasmuch as they explain very material differences in the signs of the displacement.—*Ibid.*

Fibrous Body in the Womb.—Dr. Michom presented the uterus of a woman who had lately died in his wards. When she was admitted the organs were examined, and the toucher detected in the os uteri a solid tumour, to which the floodings the patient complained of were naturally referred. Removal of the fibrous growth was comtemplated, when accurate thoracic disease occurred, and the woman died. On dissection, a fibrous tumour was found in the upper part of the anterior wall of the womb, and the morbid production of the os tincæ contained fluid. M. Michom observed that the error of diagnosis he fell into was almost inevitable, inasmuch as a fibrous production really existed in the womb, causing the losses of blood which had been erroneously attributed to the tumour of the neck.—*Ibid.*

Operation for the Removal of Vicious Consolidation of Fractured Bone. By Dr. Malgaigne.—The operation had been performed on a child, aged eight years, of a strong constitution, who broke his leg at the age of twelve months; and the fracture having been neglected, the bones united in the most irregular manner. The fracture had taken place at the union of the inferior third with the two superior thirds of the leg, and had been permitted to unite at right angles. The muscles of the posterior region of the leg were contracted, and the deformed limb was ten centimètres ($3\frac{1}{2}$ inches) shorter than the other. The child had been brought to M. Guersant, who refused to perform any operation; the case had been laid before the Society of Surgery in the month of July, and opinions had been very much divided on the propriety of attempting any surgical measures for the purpose of straightening the leg. On the solicitation of the family, M. Malgaigne, however, was induced to try the following plan:—The fibula being first divided with M. Liston's ostoe tome, a portion of bone in the shape of a wedge was removed from the tibia with a saw, and the periosteum of the posterior part of the bone was not divided. The bones were then straightened, and the limb placed in a fracture dressing. On the third day hospital gangrene appeared, and the child died ten days after operation.—*Ibid.*

The Gun Cotton and Paper. By M. Pelouze.—At the last meeting of the Academy of Sciences, M. Pelouze made some observations on the mode of preparation of his explosive paper; and stated, that two of his pupils had discovered an easy method of ascertaining whether or not the paper had been properly prepared. If the paper dissolves in sulphuric ether, it is perfect; and when it is not fit for use, it is insoluble. With the balistic and explosive properties of this new

agent of destruction, by which is truly realized a maxim laid down by a celebrated French author—"Nothing in the universe is half so dangerous as a sheet of white paper"—and with the value of the discovery in the arts of war, we have nothing to do. M. Pelouze asserts, that by the action of nitric acid upon vegetable matter a compound is produced which consists only of cellulose and nitrogen, which resembling albumen, casein, and fibrin, by its elementary composition, might, like them, yield an alimentary substance. Experiments have been made upon three dogs; during four days each animal was fed on rice and explosive paper, taking every day nine oz. of rice and three of paper; it is true that the dogs did not lose weight during the period, but the exhibition of the rice must invalidate the experiment.—*Ibid.*

The Discoverer of the Effects of Sulphuric Ether. By P. W. Ellsworth.—We find, by an advertisement in one of the papers that Drs. C. T. Jackson and W. T. G. Morton have made an important invention which has been patented. In justice to a fellow townsman, I will give its true history. The first announcement publicly made was by myself, more than a year since, in an article written for the purpose of establishing the doctrine that in disease the vital power is diminished, and suggested that in all probability pain was but a peculiar depressed state of the sensor nerves, and in proof stated that stimulants acting upon this system, and having a certain relation to it, would relieve or prevent suffering; and that the dentists of Hartford were in the habit of administering nitrous oxide gas, which enabled them to extract teeth without the consciousness of the patient. The original discoverer of this was Horace Wells, dentist in this city, and he tried the first experiment upon himself. After the idea suggested itself to him, he debated for some time which to use, the gas or ether, but preferred the former as he thought it less liable to injure the system. Being now satisfied of its powers, he went to Boston for the sole purpose of introducing it to the faculty. He presented it to Dr. Warren, who laid it before his class, but the experiment first attempted partially failing, and no one seeming willing to lend him an helping hand, he ceased making any further personal efforts. He especially made known his discovery to Drs. Jackson and Morton, neither of whom had any idea of it until this moment, and must allow Dr. Wells the whole merit of the thing up to this point. We see by the Journal that Drs. J. and M. call their invention a peculiar compound. I was fully satisfied that sulphuric ether was *the* article, as it was known to be among the ingredients, and being there, nothing else was wanting to produce the desired effect. The claim, as published, sets the matter at rest; ether, and ether alone, is used, and the world will easily judge how much right Drs. Jackson and Morton have to patent it. Had they been the first to discover the fact that any gas would produce exemption from pain, and had made it known, they would have deserved commendation. They have not done this, nor justice to the true discoverer. Is there

any merit in using ether in place of nitrous oxide gas? Certainly not, for the properties of the two things are so alike in this respect, that one is constantly used for the other, and for months I supposed our dentists were using both; and the idea of allowing any man a patent for the use of the one after the effects of the other were known, is preposterous. Dr. Wells's experiments were numerous and satisfactory. One fact discovered, is extremely interesting. It is that however wild and ungovernable a person may be when taking the gas, simply for experiment, he becomes perfectly tranquil when it is inhaled before an operation: that the mind being prepared, seems to keep control over the body, indisposing to any effort.

Unfortunately it is too true, that mystery, as of a nostrum, is frequently required to induce people, and sometimes the profession, to notice an improvement, and thus far perhaps thanks are due Dr. Morton for compelling attention; yet we must give Dr. Wells the credit he justly deserves of making the discovery, spending time and money in its investigation, and then in nobly presenting it to the world. It is to be hoped every other gas and substance capable of exciting the nervous system may be experimented upon, but we hope no one will think of patenting any if discovered to be similar in its operation.—***Boston Med. and Sur. Journ.***

The Blessings and Benefits of the Massachusetts Medical Society. By a MEMBER.—Permit me, through your very useful Journal, to inquire whether any patent has been obtained for the *modus operandi* of reconciling the principles and avowed objects of the Massachusetts Medical Society, with the recent practice of some of its leading members. Probably but few country practitioners are acquainted with the process, and we presume they would be willing to pay for the secret, not only because any man, unless he be one of the veriest numskulls in the world, must readily perceive that all future discoveries in medicine, especially if they be important ones, may be patented under the auspices of a part of the members of the M. M. Society, and the secret sold to another part, but also because the inventor must be a man of very surprising genius.

We would suggest that as opium and other narcotic remedies administered for the prevention or relief of pain, whether it be taken into the stomach, injected into the rectum, rubbed upon the skin, or inhaled into the lungs, have no direct tendency to cure disease, except in cases where they prevent the shock of a surgical operation, or save the powers of life from being frittered away by continued agony (in which case it must be agreed on all hands they work even curative effects); and also as vaccination from the prevention of smallpox has no direct tendency to cure disease; and moreover, as the discovery of a remedy for the prevention of phthisis would have no tendency to cure disease; so also it seems naturally to follow that as the reconciling of the aforsaid principles with the aforsaid practice would have no tendency to cure disease, no objection ought to be made against its being patented.

By the way, we would inquire whether as new patents come out for new discoveries in medicine, the country practitioners may take turns with the city practitioners in writing the puffs and paying for the patent.

Finally, we might suggest to the members of the Massachusetts Medical Society the propriety of exercising all due meekness and quietness while the patenting business is going on, and of submitting to everything to which they are obliged to submit.—*Ibid.*

Case of Carotid Aneurism, in which Galvanism was applied to the Blood in the Sac by means of Acupuncture. By JOHN HAMILTON, M. R. I. A., Surgeon to the Richmond Hospital.—The relation of the following case may prove serviceable to those who may try the galvano-puncture in cases of aneurism. In the first trials of a new remedy, every case should be faithfully narrated, the unsuccessful as well as the successful, that the causes of failure in the first may be clearly recognised and avoided.

James Holmes, aged 43, admitted into the Richmond Hospital, March 26, 1846. He had formerly served as a soldier in the East Indies, and was, at the end of eleven years, sent home on account of bad health. When admitted, he presented the appearance of a man whose constitution had been completely broken down (as, in fact, it was) by climate, drinking, and the effects of the syphilitic poison. He had two soft nodes, one on the sternum, the other over one of the ribs. There was strumous enlargement of the lymphatic glands on the left side of the neck, with two or three fistulous openings from which thin pus flowed. He had diarrhœa, cough, headache, and restless nights; but the most distressing symptom of all was nearly constant vomiting of a greenish-yellow fluid, and of almost every thing he took. His complexion was of a pale straw colour, and he was so weak that he could scarcely stand. He had formerly been twice in hospital under my care, once for a large abscess in the buttock, and once for a suppurating node on the parietal bone, a large portion of the outer table of which had exfoliated and been removed.

Examination of the chest detected chronic bronchitis, and on the right side, where he complained of pain, there was evidence of circumscribed effusion to a small extent, with dulness on percussion, and absence of respiration, not influenced by change of position. No enlargement of the liver was discovered, nor did sufficient evidence of organic disease present itself elsewhere, but the existence of Bright's disease of the kidneys was suspected. He had occasionally slight œdema of the face, about the eye-lids. Under treatment, the nodes disappeared, the diarrhœa ceased, the pain and effusion in the right side of the chest were removed, and his general aspect improved, but all the usual remedies failed in permanently checking the vomiting; creosote seemed to have some influence, but only temporary. It was very hard to point out the cause of this obstinate vomiting; there was no sign of disease of the brain; it had not the

character of that attending scirrhus of the pyloris, nor was there pain or tenderness in the epigastrium. About a month after admission the lymphatic glands in the neck increased in size, and were painful. His voice, before of natural strength and tone, became weak and husky; but it was not until he had been in hospital six weeks that he was discovered to have an aneurism of the carotid artery.

May 7th. He complained of having suffered from great throbbing in the glandular swelling in the left side of the neck. Beside the more superficial glandular enlargement with its fistulous openings, a deeper-seated tumour could be felt, soft, and containing fluid, but having a well-marked diastolic pulsation: it was partly on the inside of, and partly covered by, the sterno mastoid muscle. Pressure on it impeded respiration; pressure on the carotid below it could not be borne, both on account of the pain and its inducing vomiting; it could not, therefore, be tried long enough to empty the sac. There was no *bruit de soufflet*. The existence of the aneurism had not been observed before, probably on account of its having been, while small, masked by the suppurating glandular enlargement over it; besides, he usually kept a poultice on the part, and, making no complaint, the whole attention was absorbed in the other more obtrusive and serious complaints. As the aneurism got larger, the glands got less, from both which causes its existence became more apparent. It was not painful or tender, but the pulsation distressed him, and the pressure on the side of the larynx produced cough of a wheezing, laryngeal character, and reduced the voice nearly to a whisper.

This man, with such a constitution, was obviously no subject for any operation with the knife; in this my colleagues and myself fully agreed; the cure by pressure was, in such a situation, of course, out of the question. Some months previously I had seen in one of the French journals an account of the application of galvanism and acupuncturation in curing an aneurism, by coagulating the blood in the sac. I then thought the plan sufficiently feasible to determine me to try it in the first eligible case.

The present case, cut off from the usual resources of art, was clearly one in which even a doubtful remedy might be fairly tried. I began to form the opinion, too, that, in the absence of any more obvious cause, the pressure of the aneurism on the par vagum might account for the obstinate vomiting.

May 15th. In the presence of my colleagues, Drs. Hutton, Macdonnell, and Macdowell, and Mr. Stapleton, of Jervis-street Hospital, I proceeded to apply the galvanism to the tumour. The state of the aneurism previous to the operation was as follows: it was about the size of a hen's egg, but rather flat, of somewhat irregular shape, with a round, smooth projection on the inside, where the walls of the sac appeared thinnest. The centre of the tumour was on a level with the cricoid cartilage, the sterno-mastoid muscle was stretched over it; the pulsation was strong, but no *bruit de soufflet* was audible.

I passed a thin gold needle into the outside of the sac, till it had penetrated to about an inch; the same was then done on the inside, the thin projecting part of the aneurism being avoided; the needles could be made to touch in the centre. I used needles of gold, as better coagulators of blood than those of steel; by the advice of Mr. Fagan, the electrician to the hospital, who was kind enough to regulate the galvanic battery for me, they were isolated every where, except at the point, by a varnish of shell-lac. The battery used was one of Smee's, consisting of twelve zinc and silver plates. The action was given very gradually, by, at first, only immersing the plates to two or three inches. When the whole force of the battery was used, it only caused moderate pain, and produced slight contraction of the muscles; he compared the pain to the prick of a leech. At the end of fifteen minutes the coagulation of the blood was not such as to cause any remarkable change in the tumour, but it appeared to beat with less force at the outside. After this the pulsation became evidently less, the tumour firmer and larger, and he began to complain of uneasy, weighty sensations, and very severe pain, which he compared to his throat being held fast by the teeth of a dog. He said he suffered much from pain in the left side of the forehead, with lightness, and other unpleasant feelings. The sensations in the tumour were very distressing, and those in the head, from their violence, assumed rather an alarming character; but the most serious symptom was the great increase of the swelling as coagulation took place chiefly in a direction upwards and downwards, in the course of the sterno-mastoid muscle; this seemed the chief cause of the pain and the tight feel in the throat.

At the end of twenty-five minutes complete coagulation had taken place in the aneurism, which felt solid, and pulsation was imperceptible; for these reasons the galvanism was discontinued. The discontinuance might have been demanded also for another reason, that round the positive needle, on the outside, the parts in immediate contact were observed to vesicate, and then to turn quite black for the size of a spangle, the vitality being destroyed by the galvanic action: when this needle was withdrawn there was a slight flow of blood, but none from the puncture of the negative needle.

So far, therefore, as the solidifying of the blood in the aneurism, the operation had succeeded, but not without considerable grounds of uneasiness. The unpleasant feel in the head continued, with the pain over the left eye-brow; the pupil was observed to be contracted, and there was *loss of sight in the left eye.* He was restless, and tossed about, complaining much of the tightness of his throat; he had twitches in the lower extremities, and complained of being chilly, and the pulse fell from 74 to 60. With respect to the tumour itself, the sudden increase was sufficiently alarming, as it was three or four times larger at the termination of the application of the galvanism. The increase, as observed before, took place chiefly upwards and downwards in the course of the muscle; it reached from about one inch above the clavicle to an inch and a half below the

ear. The tumour was also more prominent. From what did this increase arise?

May 16th. Has passed a sleepless night, and frequently vomited the iced brandy and water which he had been ordered. He had pain both in the head and in the tumour, and was unwilling to have the latter touched, it was so sore. Reaction had now set in, and the pulse was 86. The tumour was quite solid in every part, except at the inside, where it was softer, and where, I thought, I felt pulsation, but it was too indistinct to be certain. The whole solid body of the tumour was lifted up by each pulsation of the trunk of the carotid beneath it. He did not suffer pain in either the head or tumour; but complained of great weakness. Tongue rather dry, and thinly furred.

17th. Says he is better; no pain or throbbing sensation in the tumour; it looks large, I should say about four times larger than before the application of the galvanism. It feels hard and perfectly free from pulsation at its posterior half; but at its anterior half, where there is the sensation of fluid, pulsation is perceptible, but less strong than before. He does not now complain on its being touched. Where the positive needle was inserted, the small, round, black spot is observable; pulse 80; vomiting as before. After this the pulsation returned in the whole tumour, which, though much increased, resumed more of its original oval form, but became very prominent, the sterno-mastoid muscle being on the stretch across it.

A question now naturally presented itself,—should the application of the galvanism be repeated? My own impression decidedly was, that it should not, for should it be followed by a still further increase of size, in addition to its already large bulk, the pressure on the trachea and jugular vein might induce serious, if not fatal results. During a temporary absence in England, my colleague, Mr. Adams, who kindly took charge of the case, had a full consultation upon it, at which Sir P. Crampton was present, when it was decided that further interference by operation in such a constitution would only hurry on the fatal termination of the case.

The vomiting continued as violent as ever, and he died, apparently of exhaustion, on the 8th June, a little more than three weeks after the application of the galvanism. A few days before his death there was no pulsation in the aneurism.

Post-mortem Examination.—There was nothing found in the viscera to explain the vomiting, the stomach being only a little redder than natural, as was also a short portion of the ileum. The substance of the liver did not appear diseased, but it presented a curious malformation, being divided into a number of small lobules, like the kidney of an ox. No appearance of disease in the brain. The kidneys in the first stage of Bright's disease. The heart, aorta, and large vessels of the neck, were removed along with the aneurism, and carefully examined; the heart and aorta were healthy. The aneurism was about the size of a large orange, its superior surface was on a level with the upper edge of the hyoid bone, its lower with the

seventh ring of the trachea; it was globular at its anterior two-thirds, flatter behind, between which two portions, on the outside, was a deep groove, partly filled by the edge of the sterno-mastoid, and partly by the jugular vein, which was quite flattened and impervious. The par vagum nerve ran over the posterior surface, at first expanding out into a fibrous arrangement, afterwards so flattened on the surface of the tumour that it formed a membrane a quarter of an inch broad, so thin and so closely applied, that it required delicate dissection to raise it off the wall of the aneurism, and trace it on to its trunk above the tumour, where it became normal.

The sac of the aneurism felt strong and rather thick, particularly in front, and as if its contents were in a great measure solid; posteriorly it had a softer and more fluid feel. It sprung from the anterior part of the common carotid artery, but the vessel was lost in the tumour, and only traceable a short distance up the lower part of the back. Below the aneurism, the trunk of the carotid was sound, but both external and internal carotids were much reduced in size, and so much obstructed that a probe could not be passed through them into the aneurism.

A section of the aneurism showed the contents to be solid, the centre occupied by clotted blood, of the colour and consistence of black currant jelly; from a quarter to half an inch from the margin the layers were of a pale red colour, and had a fibrous arrangement, exactly resembling muscle; when they were removed the lining membrane was found smooth but uneven.

As far as coagulating the blood in the sac, the application of the galvanism in this case was successful, complete coagulation having been effected by it. From the proximity of the carotid artery to the heart, and the direct course of its trunk (both favouring the rapid current of the blood,) as also from the very free anastomosis with the numerous branches of the corresponding artery, an aneurism in this situation is one least likely to preserve the coagulum formed by the galvanism. In the present instance, likewise, a successful result may have been prevented by the total impossibility of using sufficient pressure to obstruct the current, and prevent its washing away the newly-made clot. To be completely successful, repetition of the operation would have been required; my reasons for not deeming this advisable have been already stated. What I have observed, however, convinces me that in more suitable cases this mode of treating aneurisms will yet be found most valuable.* The sudden and rather alarming increase of the tumour, which occurred during the application of the galvanism, should it be constantly observed, may fairly be brought forward against its use in aneurism situated, as this one was, in the neighbourhood of important organs, which would be

* A case is given in the *Revue Medicale*, for December, 1842, of a popliteal aneurism in a man of seventy, cured by M. Petrequin, of the Hotel Dieu of Lyons, with acupuncture and galvanism, in a single sitting; and several cases have since appeared in the public journals.

very intolerant of sudden pressure, although they may bear or accommodate themselves (as we know they do) to the gradual pressure of tumours.

It is not easy to account satisfactorily for this rapid enlargement; the perfect integrity of the sac shows it was not from extravasation of blood by rupture; moreover, no traces of blood could be discovered. We know that during the galvanic action a quantity of hydrogen is evolved from the negative pole; it would, however, have been scarcely equal to the actual amount of the increase; the sensation, also, was of something more solid than if the contents were gaseous fluid. It now appears to me more likely to have been caused by the galvanic influence extending beyond the sac, and coagulating the fluids in the cellular tissue around it, the coagulated matter having been afterwards absorbed. The size of the aneurism at the time of death was certainly not larger than it would have been in the usual progress of the disease, and if the galvanism had never been applied.

M. Petrequin insists on the necessity of the needles crossing, to produce a proper coagulum. The needles, in this case, though they could be made to touch, certainly did not cross, and yet coagulation was complete. But I have further reasons for believing this is not necessary: I thought that, in performing the operation for the future, it would be as well to avoid, if possible, the entrance of the hydrogen gas evolved from the negative pole directly into the circulation. I therefore suggested to Mr. Fagan to make the experiment of putting an albuminous fluid into a small bladder, and to insert the positive needle into the fluid; but merely to apply the negative wire to the outside of the bladder. He accordingly filled a small portion of sheep's intestine with one part of white of egg and two parts water, quite full, and without any air. He inserted the positive needle its whole length through the gut into the fluid, and applied the negative wire merely to the outside of the sac, and succeeded in producing a large tea-spoonful of mucous-looking coagulum, without a bubble of hydrogen in the fluid inside, but many adhering to the outside, and to a silver plate on which the sac was placed. We have no grounds to say the entrance of hydrogen into the blood is injurious; but the fact that coagulation can be produced without its necessarily being present is interesting. The condition in which the par vagum was discovered may, perhaps, explain the incessant vomiting. It is scarcely possible to suppose that a nerve so closely connected with the functions of the stomach could be so much deranged in structure without considerable gastric disturbance.—*Dub. Quarterly Journal of Medical Science.*

Observations on the Oxalic Diathesis, and the Influence of the Rhubarb Plant in its Production. By JOHN S. BARTRUM, Esq., Surgeon, Bath.—Having for some years been in the habit of paying attention to the general and chemical conditions of the urine, it was with much pleasure that I perused the paper of Mr. Wilson, inserted

in No. 35 of the *Provincial Journal*, (September 2, 1846,) especially from having, on several occasions within these two or three last years, noted in my own person, the effects on the urine of the rhubarb stalk and other articles of diet. The portion of urine passed after rising in the morning was always examined by the miscroscope without heat, as the shortest and not fallacious mode.

Being apparently in the most perfect health, excepting rather overworked, and as far as unlike a patient suffering from oxaluria as possible, at first I could scarcely believe myself to have passed oxalate crystals, till confirmed in my supposition by Dr. William Budd, who immediately remarked that I must have been eating rhubarb, which, however, had not been recently the case. This induced further and oft repeated examinations, the general results of which I can only now give, having not long since destroyed the daily records, considering them as not worth keeping.

While passing the smaller oxalates, and then partaking freely of rhubarb, the first effect was generally to increase the size and quantity of oxalates thrown down, with the occasional addition of some of the reniform bodies; the diet being continued, the crystals of all shapes increased in size, especially the latter, till on two occasions they almost solely were passed. However, after a day or two, the oxalates diminished and then disappeared, although rhubarb was still partaken of ; this may probably be explained by having regarded the appearance of the oxalates, as sure warning that I must give myself more relaxation. The results have been similar on two or three occasions, when from continuous exertions I have expected their presence and found them ; but I have never been able to induce their appearance by the freest use of rhubarb, except in the very fine cuboid forms, for a day or so, unless they were previously present.

If Mr. Wilson continue his inquiries, I think he will find, that any article of diet, adding to the irritability of the kidneys and bladder, will induce an additional secretion of the oxalates; for I always found, that partaking freely of water-cresses added materially to the quantity of oxalates, provided I were already passing them, from the irritation of the bladder, caused by the abundant secretion of free lithic acid. Whether the elimination of oxalates, as well as of lithic acid, was due to the water-cresses, or the common salt accompanying them, I cannot say. That must be left for future investigation.

It will be found almost universally, that cases characterised chiefly by deposits of oxalates are combined with an asthenic condition of the assimilating organs ; some of them corresponding closely with those caused by the excretion of an abnormal amount of urea, the urine then being dense and loaded with lithates, while others, from the excessive excretion give rise to a suspicion of diabetes mellitus, so much so, that of the many specimens sent me for examination, where a large quantity of urine is voided, the greater proportion are of low specific gravity, with some few small oxalates, and often swarms of vibriones. These latter cases, however, are essentially cases of want of nervous power without any specific ailment, sometimes passing

phosphates, sometimes oxalates, according to the varying condition of the system, which always displays a very reduced vitality.

In this, as in all other diseases of the urinary organs, where chemistry is called into our aid, there is great danger of their being treated as though the body were a mere laboratory, wherein we could modify these secretions at our will, overlooking the essential cause of the ailment; but, however useful and necessary such examinations may be, it behoves the practitioner carefully to eschew being implicitly guided by them; as some cases of this disease are treated successfully by alkalies, others by acids; some by restricted, others by a generous diet; for though medicinal remedies are most useful, and in the majority of cases requisite, they will be of little avail, if not well supported by carefully-applied general and dietetic measures.

I think that the size of the crystals of oxalates passed will often afford a good indication of the extent of the oxalic diathesis. If the crystals, especially the reniform, be large, distinct, much inclined to become clustered, crystalize on the hairs, &c., much oxalate of lime is passing. As the case improves, the crystals lessen in size and numbers till at length they become undistinguishable, except to the educated eye. Though it is unusual, the reniform bodies may continue to the last, when, in some positions, they may become in appearance almost like a blood-corpuscle; in the majority of cases these crystals are not to be found.

It has been suggested (by whom originally I cannot learn,) that these reniform bodies are not oxalate of lime, but lithic acid, modified in shape by the presence of oxalic acid. This can scarcely be, for I have, with several different specimens, macerated the whole deposit in liquor potassæ, to get rid of any free lithic acid; then, in diluted acetic or muriatic acid, whereby the phosphates and lithates are separated; yet both the cuboid and reniform crystals have remained quite unaltered. I have not succeeded in throwing down crystals of oxalate of lime, when a deposit of free lithic acid and oxalates was dissolved in sulphuric acid, and the former separated by the addition of water, perhaps from sufficient care not having been taken in the matter.

Should it be desired to separate any deposit of these salts for examination, it is most easily effected by decanting the upper layers of fluid, adding distilled water to the remainder, with or without potass, or acetic acid. The oxalates soon fall to the bottom, and may be readily collected on a watch-glass, without heat or any other process that could modify its composition after leaving the body. By careful manipulation you may obtain and weigh all the crystallized salt in a given specimen. To those not conversant with the salt naturally deposited, yet desirous to examine it, one of the best modes of learning all its usual shapes and sizes is to add a dilute solution of oxalic acid to fresh healthy urine, when after some hours the characteristic crystals will be found in abundance.

I do not know whether this city more abounds with cases of this disease than most others, but among its labouring population, of the

class next above the poor, such as policemen, schoolmasters, carpenters, &c., (some hundreds of whom come wholly under my observation.) dyspepsia, of an atonic character, and marked by the pallid, depressed, emaciated countenance, with more or less hypochondriasis, pain of the side, (often of great intensity,) or of the back, and the passage of oxalate crystals is most rife, though in most cases readily amenable to judicious treatment. From my own observation this form of dyspepsia does not seem so common among the women of this class as among the men, even in those, wherein from their appearance and symptoms I had fully expected to find it. Of the presence of the oxalates in the more acute or in cutaneous diseases, I can say nothing, not having examined them for that purpose.—*Provincial Med. and Sur. Journal.*

TRANSACTIONS OF THE PHARMACEUTICAL SOCIETY.

On Extract of Indian Hemp. By Andrew Robertson, Esq., Professor of Chemistry to the Medical College, Calcutta.—A number of pounds of the extract of hemp were prepared by me—I think upwards of thirty in all—for the purpose of having its medical properties fully tested by European medical men. A quantity went to Paris, another to Berlin, another to London, sent by different parties, and for my share of the matter I sent four pounds of it to Scotland, part of which went to you. I do not care about making more of it, as its preparation is most tedious and troublesome, in which I was tormented by the excise regulations of the country, for both the plant and the spirits used are the subject of heavy duties and stringent precautions, and the cost price of the extract to me, counting nothing for trouble, was fully fifteen shillings per lb. Dr. O'Shaughnessy made his extract with alcohol, in a Papin's digester, at a heat above the boiling point of alcohol—the extract so obtained is brown; mine is of a deep green, and gives a grass-green tincture to alcohol, and has six times the activity of the brown, as ascertained by trial on hospital patients. If a speedy effect is desired it is given as a tincture; if a deferred and protracted, as a pill.

As the process by which it was prepared is an idea of my own, since copied by others, and which probably may be claimed by them afterwards, I may mention it to you. It is a variation of the process of percolation, alcohol in vapour being the agent. A still was charged with strong spirits, and its nose introduced into the side of a cask in which the plant was pushed.

The vapour of the alcohol, and alcohol at a boiling heat thus acted on the plant, instead of cold alcohol in the usual mode of percolation. First issued a thin tarry matter containing much resin latterly, a brown liquor containing little resin but much extractive. At this point water was substituted for the spirit in the still, and as much as possible of the spirit retained by the plant thus expelled from it. From the bottom of the cask a pipe led to a common condensing worm. Part of the alcohol was recovered from the fluid by distillation, the rest dissipated by evaporation in Wedgewood ware on a

sand-bath, not exceeding the temperature of 150 deg. Fahr. One hundred weight of the plant was used at one operation, and about eight pounds of extract obtained. The operation was conducted so slowly as in all its stages to last a fortnight.

The extract of hemp has been long known in the East, in a most widely extended range of countries, under the names of Gunjah, Churrus, Hashish, Beng or Bang, the emerald cup of Haider, &c., and under every name renowned for its exciting and narcotic qualities. It is used by the natives here in the same way as opium is by the Chinese, and on that account is the object of fiscal regulations and duties. It is known throughout all India, Arabia, Syria, and Eygpt. You will find it in the *Arabian Nights*, translated by Lane, under the name of Beng, as the narcotic used by Haroun Alraschid, and others. There cannot, therefore, be a doubt that it is a drug nearly as active as opium.

The inactivity of the drug, therefore, prepared in Britain, I can attribute only to faulty preparation and overheating, or to its being made from old and decayed plants. The good plant is of a greenish brown, the heads loaded with a sticky resin; the bad is palish-brown and does not adhere to the fingers. The good extract gives a grass-green tincture, the bad a brownish. My extract was made from dried plants of good quality, as it cannot be readily obtained fresh in Calcutta.

Mr. Fordred stated, that it had recently come to his knowledge that some of the extract, sold in London as extract of Indian hemp, was made from the plant grown in the neighborhood of London, and he believed possessed but little, if any, of the narcotic properties of the Indian plant. The extract made from the hemp (*Cannabis sativa*) grown at Mitcham, was of a green colour, and being apparently an aqueous extract contained but little resin, while that prepared from the plant grown in India contained a large proportion of resin. He thought it important, as many medical practitioners in different parts of the country were trying the efficacy of this remedy, that they should be cautioned to be particular in obtaining the extract of the *Indian* hemp.

Mr. Redwood said, that much of the extract made from the hemp plant imported from India, as well as the extract which had been imported ready made, was found to possess but little narcotic power when tried in this country; certainly they had not realized the expectations which were formed from the accounts of its action given by medical men in India. Dr. O'Shaughnessy, when last in this country, had admitted that the extract, even some that he had brought from India himself, had failed to produce the effects he anticipated, when tried in our hospitals; and he had undertaken, on his return to India, to have some extract very carefully prepared, and sent over to this country. Mr. Squire had received a quantity of this extract, and he presumed it was that alluded to in the paper just read, as having been made by Mr. Robertson.

Mr. Bartlett had witnessed the effect of a very small dose of extract of Indian hemp, obtained from Mr. Squire, on one of his assistants,

and the action was that of a powerful narcotic. The young man stated that he felt all the symptoms of intoxication.

Dr. Ure had been recommended the use of the extract of hemp by his son; but although he tried it for some time, he never experienced the slightest effect from it. The extract was the same as the above, having been obtained from Mr. Squire.

The Chairman thought that the present state of medical knowledge, in reference to the action of Indian hemp, was very unsatisfactory and imperfect.—*Dublin Med. Press.*

Dilatation of the Heart consequent upon Teetotalism. By Richard Chambers, M. D., Physician to the Essex and Colchester Hospital.—*Case* I. A gentleman, aged fifty of good constitution, and accustomed to live freely, became a convert to teetotalism. For a period of six months subsequently, there was no perceptible alteration in his state of health; but about this time he became subject to attacks of nervousness and paroxysms resembling angina, which gradually increased in frequency and intensity up to the time that I visited him. I saw him on August 16th, in consultation with his ordinary attendant. In addition to the above particulars I ascertained, that repeatedly in the course of the night and day, he was subject to attacks of breathlessness, that compelled him to rush to an open window to relieve the sense of impending suffocation. In the intervals he was quite cheerful. He complained of pain in the back of the head; pulse 84; bowels regular; urine copious. On examination of the thorax, (which was extremely well formed,) I found the lungs perfectly sound; the action of the heart was regular, and its sounds unusually clear, but there was scarcely any impulse. He had been bled the day before, principally at his own request,) but with no relief.

As he had latterly been using a restricted diet, I placed him upon meat daily, with four glasses of good old port, and prescribed five grains of the carbonate of ammonia every four hours, and three grains of the sulphate of quinine thrice a day.

Under this line of treatment he began gradually to amend. At a subsequent period the sulphate of zinc was prescribed for him, and with the alternate use of zinc and quinine, and an increased allowance of wine, his health has been sufficiently restored to enable him to participate in the manly and trying game of cricket.

Case II. Henry Taylor, aged 30, a working gardener, applied at the Essex and Colchester Hospital, June 4th, 1846, complaining of headache and general weakness. He was of middle stature, and of a full habit, presenting a slightly bloated appearance. His appetite was good; pulse 78; bowels regular. On stethoscopic examination, the lungs were found to be perfecty healthly; the heart's action was regular, the sounds clear and healthy, but there was only a very slight impulse. He slept indifferently. For the last six months has been a teetotaller, but denies that he was a drunkard previously.

℞ Pil. saponis; rhei; utrq., gr. iiss. M. Fiat pilula omni nocte sumenda.

℞ Ammon. carb., gr. v.; tinct. camph. comp. dr. ss.; Aquæ, oz. j. M. Sumat ter indies.

15th. His wife applied for medicine for him to-day, and I found that my suspicions as to his intemperate habits were correct.

℞ Pil. saponis, gr. v.; omni nocte. Rept. haust. To have a little gin-and-water after dinner.

This treatment was continued up to the last fortnight, and being free from complaint he discontinued his attendance.

I bring these cases before the association as examples of dilatation of the heart, consequent upon the adoption of teetotalism. The *modus operandi* appears to me to be the yielding of the muscular structure of the heart, in consequence of the less stimulating character of the blood; but, in addition to this, it must not be overlooked, that another element may also be in operation,—I mean an actual increase in the quantity of blood to be circulated, as I have invariably found that a great increase of appetite accompanies teetotalism; not a healthy appetite, but a morbid craving for food, and to oppose which opium is frequently resorted to.

These cases present the principles of the treatment to be adopted, and there is but one caution necessary, and that is, to draw a careful distinction between actual determination of blood to, and merely congestion of blood in, the brain. In the cases just related the headache was referred to the back of the head, and appears to have arisen from venous congestion, but on the stethoscopic induction I wish to place the chief reliance.—*Ibid.*

Insanity in Eygpt.—The following extract from a clever work just published, conveys a wretched picture of the condition of the insane in Egypt. It is to be hoped that Ibrahim Pacha was not allowed to leave this country without witnessing the treatment pursued at Hanwell and others of our best conducted asylums.

"The saddest sight I have seen in Cairo is the Mooristan or madhouse—misery mitigated by nothing but its own oblivious antidote—'Razing the written troubles of the brain.'

"A horrid court-yard, surrounded by tiers of iron cages, where men are cooped, and sometimes chained, with less of space, air, light, and cleanliness, than are allowed to a wild beast in one of our travelling menageries. Poor helpless wretches!—the moping idiot, the gay madman, the furious maniac,—sullen and weeping, laughing and singing, grinning, howling, and tearing behind the bars;—of all the fearful 'ills that flesh is heir to,' this overthrow of reason is surely the most painful to look upon.

. . . . . omni
'Membrorum damno major Dementia.'

I saw one poor patient brought out of his den and set at liberty; he lay for a few minutes upon a filthy mat on the stone pavement, his features drawn, lived, and stiff—a shudder passed through his wasted frame, and he was dead!

"After several visits, I have established an acquaintance with two or three, and make them presents of bread and tobacco, for which they are very eager. One captive, quiet, self-collected, and hand some featured, tells a long well-sustained story of female jealousy and a family conspiracy to obtain his property and confine him for life: he stoutly maintains that he is as much in his senses as any man in Muzr—a strong reason for doubting the tale, which if true, would have driven a philosopher crazy. My new servant, *Black Omar*, who stands interpreter, believes every word, and thinks it no uncommon case; he tells me that *snake broth* is the 'sovereignis't thing on earth' for these mental maladies, and that no other medicine is used in the Mooristan, save the iron-chained collar and the bastinado,"—*Nozrani in Egypt and Syria.*

MANCHESTER PATHOLOGICAL SOCIETY.

Retroversion of Uterus—Retention of Urine for fifteen days—Fatal Inflammation of the Bladder.—Mr. Dumville presented the genito-urinary organs of a woman, aged 22, who died in the fourth month of pregnancy from acute inflammation of the bladder consequent on retroversion of the uterus. The body was examined twenty-four hours after death. The bladder contained some urine; its peritoneal covering was thickened and opaque, and had contracted adhesions with the surrounding intestines. There was also some muscular hypertrophy. The whole inner surface was thickly coated with false membrane, which hung in shreds, and was mixed with earthy matters. The uterus was firmly impacted in the pelvic cavity; it contained a four months' fœtus, and the right ovary had within it the corresponding corpus luteum.

The woman had borne two children, and in the latter months of the second pregnancy suffered from prolapsus of the Uterus, which disappeared after delivery. She became a third time pregnant, and during the entire four months preceding death she had suffered from pain in the pubic region, and had also the sensations of prolapse, without, however, any well-ascertained descent of the parts. Twenty-two days previous to death, whilst occupied with manual labour, she experienced a sudden and violent pain in the hypogastrium, with great desire, but inability, to void urine. A surgeon drew off three pints of water, but neglected to repeat the operation for sixteen days. During this interval the bladder was never properly evacuated, the urine mostly escaping guttatim, and with extreme suffering. She was then first visited by Mr. Dumville, who, on examination, discovered a retroversion of the uterus, with the os resting on the symphisis pubis. Marked symptoms of acute inflammation of the bladder presented themselves, which he treated in the usual manner. On introducing the catheter, he withdrew a large quantity of urine, which was strongly ammoniacal, and yielded albumen plentifully. It was of a blood-red colour, and 1012 specific gravity. Microscopically examined, it was found to contain blood-discs, pus globules and crystals of neutral triple phosphate of ammonia and magnesia.

The inflammation of the bladder in this case was, in a certain sense, attributable to the retroversion of the uterus, but still more clearly to the neglect of periodically withdrawing the urine by catheter; for the distension caused by the retained urine, and its irritating properties, determined the fatal issue; so much the more to be regretted, seeing the rules for the management of similar cases have been so distinctly defined that no apology remains for the omission of putting them into practice.—*Dub. Med. Press.*

Cancer of Pylorus—Obscurity of Symptoms—Suppuration of Gall-bladder.—Dr. Francis sent for exhibition a fine specimen of cancerous ulcer which involved the whole of the pylorus. Its surface was ragged and burrowing, the margins raised and everted; in length it measured four inches, in breadth two. The stomach was pale, and unusually small; the duodenum was of a deep slate colour.

It was taken from the body of a man, æt. 60, who, within the last eighteen months, had suffered much from privation and severe domestic troubles. He was under the daily and close observation of Dr. Francis for the last six months of his life, during which time he gradually emaciated. There was never any vomiting or complaint of pain, or other symptom indicative of local disease, but he was throughout the subject of a settled gloom, under the influence of which he seemed to be slowly sinking. A few weeks before death he contracted diarrhœa, which was then epidemic.

Dr. Francis considers that a very interesting and instructive feature in this case was the absence of local manifestations of disease, notwithstanding the existence of so formidable a lesion in a part of the stomach so almost uniformly attended with vomiting or pain. It added another to many instances he had had the opportunity of observing at the workhouse, of the fact, that where strong grief had taken possession of the mind it sometimes happened that sensibility seemed to have become so impaired that the symptoms ordinarily resulting from local irritation had not been developed. In several inspections of persons who had died whilst labouring under the melancholic form of insanity, or under that particular state of mind which, in popular language, is described as "a broken heart," he had never failed to find organic disease of some part or other, however obscure its existence might have been during life.

Along with the cancer of the stomach, the gall-bladder was found to be distended with a puriform fluid untinged with bile, which, under the microscope, was seen to contain pus, mucus, and inflammation globules, and behaved as pus on the addition of liq. potassæ. Several superficial granulating ulcers were observed upon the inner surface of the viscus, and, a short distance within its duct, was firmly impacted a round calculus, nearly a third of an inch in diameter, and composed chiefly of cholesterine. The liver did not seem to be unhealthy, and there was no cancer elsewhere than in the stomach.

Ibid

Two cases of Spina Bifida—one of them Cured.—Mr. Dumville exhibited a preparation of spina bifida taken from a child aged five months. The arrest of developement happened in the spinous processes of the third, fourth, and fifth lumbar, and first and second sacral vertebræ, which gaped widely apart. The sac in which the cauda equina partly expanded was large enough to contain an ounce of fluid. The tumour was punctured at the urgent instance of the friends, but at a period when the failing powers of life offered scarcely a hope of recovery. The child died with the usual symptoms.

Mr. Dumville related the particulars of another case, in which the congenital deficiency was situate in the same locality. He evacuated the sac by puncture, and the recovery was complete. The child, which was nine months old at the time of the operation, has now attained eighteen months; and its health is unexceptionable. The operation was quickly followed, in this instance, by a profuse perspiration; the face immediately became deeply congested; and there was much derangement of the stomach, attended with vomiting. The child was very fretful, had excessive twitchings, but no distinct convulsion. When the sac was quite empty all the symptoms were aggravated; but on becoming again distended with secretion, which occasionally took place in consequence of mechanical obstruction of the aperture, the symptoms underwent amelioration. The discharge of fluid, with more or less of the symptoms described, having lasted fourteen days, the orifice then healed over, and no further secretion of serum following, the child convalesced without any relapse. This case he adduced rather as an exception to, than as an example of a general rule.

Judging from the aggravation of the symptoms whenever any excess of the fluid happened to drain off, it would appear that too much precaution cannot be taken in order to secure the evacuation of the sac as gradually and in as constant a manner as possible, in these cases, and that the plan of operation most suitable for the attainment of this desirable end should be adopted, and, above all, timely put in practice.—*Ibid.*

Treatment of Bursal Disease of the Knee-joint. By John Richard, Esq., of Leamington.—The plan of passing a bit of sewing-silk through the centre of the tumour I have practised for the last fifteen years. It has never failed in my hands, and I do not think that I have ever allowed the silk to remain longer than through the third day. When the inflammation has been very considerable, I have always enjoined rest, and applied a few leeches, followed up by a liq. plumbi lotion, previous to introducing the silk.—*Ibid.*

History of a case of remarkable coloured Secretion from the Skin. By C. D. Purdon, M. D., Belfast.—Barbara Murphy, æt. 40, an inmate of the Infirmary attached to the Belfast Charitable Society, the mother of two children: catamenia regular up to the last six months; attributes the first commencement of her state to a fever with which she was

attacked about twenty years ago, immediately after which she experienced a pain in the ball of the great toe of the right foot, terminating in a swelling of the same part. Both ankles became painful and swollen; a short time after this ascites supervened; all these symptoms subsided on her becoming pregnant, during which time she enjoyed perfect health. About three weeks after her confinement she was seized with pain, accompanied with swelling, in the joint of the first finger of the right hand, which gradually attacked each joint of the upper extremities in succession, and spread thence to the lower, commencing above. After some time the wrists, ankles, and smaller joints of the hands, became distorted and nodose, in which state they have since continued. From this time nothing remarkable was to be observed in her state, but she continued to suffer from occasional attacks of rheumatism, and was almost always confined to bed, until three years ago, when, during an attack of rheumatic fever, the heart for the first time became affected, after which anasarca and hydrothorax supervened. These were partly relieved by a severe diarrhœa, but on its subsidence both became greatly aggravated; however, they were not only kept in check but much ameliorated by the different remedies employed. Some months ago they returned with such severity as to threaten a sudden termination of her life; when at the worst a miliary eruption appeared on the trunk, greatest in the epigastric region, from which a clear serous discharge flowed in such quantities as literally to wet the bed; there was also a great moisture on the legs, which had blisters on them, in place of the eruption; this of course was attended with the greatest relief, and the breathing became almost free. The discharge continued for some days, after which it ceased, and symptoms of dyspnœa returned with great severity for fourteen days, when, after having a sense of prickling over the whole body for about twelve hours, the eruption again appeared, attended with the discharge, and causing the same relief. In this state of alternate relapse and recovery she has been for the last two months, the duration of the paroxysms being either eight or fourteen days; but the most curious point in the case is, that the serous discharge has changed very much in its character for the last four or five attacks, being nearly alternately blue and straw-coloured, or yellow, almost like pure bile. When the blue discharge appears she is aware of its advent by a mouldy smell and a prickly sensation, which precedes it invariably for twelve hours; the yellow is not attended by either of these. The blue always appears along the posterior part of the chest; the yellow generally proceeds from the abdomen and back of the neck, and rarely from the back: the blue never has appeared on the abdomen; the two colours have been procured from the different parts at the same time. The discharge from the extremities has never been coloured. In place of catamenia there is a discharge of a reddish green colour. As to treatment every remedy has been tried without relief to any of the symptoms, either of the rheumatic or cardiac affections. The yellow colour is tolerably permanent, the blue, however, fades; she has not taken any preparation of iodine for some years, and at present uses only opiates and saline draughts. In addition, it is worthy of remark, that a very peculiar elongation of the *quick* under each great toe nail has taken place. This became manifest on the nail being paired,

and now appears like a loose fold of flesh, which hangs over the ball of the toe, and resembles in shape the bony nail.—*Dublin Quarterly Journal of Medical Science.*

Extirpatiou of a Tumour from the Antrum Maxillare, with removal of the superior Maxillary Bone, including the Palate Plate. By C. Aston Key, F. R. C. S. E., Senior Surgeon to Guy's Hospital, Communicated by Sir Philip Crampton, Bart., F. R. S., &c.

Merrion-square, Sept. 20, 1846.

Dear Sir,--By the kind permission of Mr. Aston Key, I have the gratification of communicating to you the particulars of a case of tumour in the antrum maxillare, which was successfully removed by that excellent surgeon. The tumour was of great size, and must soon have proved fatal, as it had already pressed down the soft palate to such an extent as materially to interfere with deglutition. The aspect of the young woman was healthy; the tumour seemed to be of a firm nature; and there was no soft or fungoid-like protrusion through the nostril. These circumstances, no doubt determined Mr. Key to undertake the operation,

I remain, dear Sir, faithfully yours,

Philip Crampton.

To the Editor of Dub. Quarterly Journ. of Med. Science.

St. Helen's-place, Aug. 25, 1846.

My Dear Sir,—The operation of removing the superior maxillary bone in the young woman whom you saw at Guy's was done a fortnight ago, and she is now quite convalescent; so far the case, as you predicted, has proved quite satisfactory. The whole of the bony palate on one side, the nasal process, and the bone, with the exception of the floor of the orbit, were taken away, and exposed a large tumour of simple structure, which readily turned out from the back of the antrum. There was no difficulty in the operation, and the diseased mass was detached with ease from its bed. On examining the structure of the tumour we could discover no trace of malignant disease; it consisted of fibro-albuminous deposit, and, being of so benign a character, there is every prospect of its not returning. The incision in the cheek, which extended from the outer canthus of the eye to the angle of the mouth, healed by adhesion. I thought that you would like to know the result of the case.

I am, dear Sir, yours most truly,

C. Aston Key.

To Sir Philip Crampton, Bart.

Dub. Quart. Journ. of Med. Science.

Medical Court Martial.—A kind of medical court-martial has been lately held at the hospital of Val de Grace, under the presidency of Colonel François, to try a surgical pupil of the hospital on a charge of having caused the death of a patient by giving him an overdose of opium.

The deceased, a military patient, was admitted into the hospital for ophthalmia, and the physician prescribed for him a sudorific syrup; but it so happened, that the first dose which was given to him con-

tained about *an ounce of the tincture of opium!* (thirty grammes.) The man swallowed it, and died in three quarters of an hour, violently convulsed. The minister of war ordered an investigation of the circumstances.

M. Fretin, the accused, was interrogated on the allegation of his having labelled a bottle, containing tincture of opium, "sudorific syrup," but he denied that he had made any mistake, and contended that he was not responsible for the result. The accused was defended by counsel, and the court, after hearing the defence, acquitted him of the charge.—*Journal de Medecine..*

*** The case is chiefly remarkable from the fact that it is perhaps the most rapid instance of poisoning by opium on record.—*London Med. Gaz.*

French Medical Students.—By a decree just issued from the University of France, it has been ordered that, after the 1st of November, 1846, all medical students shall undergo an examination at the end of each of the three years of study. In the first year, on physic, chemistry, and natural history; in the second year, on anatomy and physiology; and in the third year, on pathology. There will be three examiners, and four students at each examination. The examinations will take place between the 15th of July and the 1st of August, and any student who fails to satisfy his examiners, cannot again present himself until the following November. Unless he then passes, his ticket for the ensuing quarter will be withdrawn. If again rejected in November, he must resume his studies for a year.

These rules are severe, but they embody a much better method of testing the knowledge of a candidate than the mere forms of examination which are gone through in this country, upon all kinds of subjects, at one sitting of an hour's duration.—*Med. Gaz.*

Phosphorescence of the Human Body.—The subject of this case was a male infant sixteen months old. The child had suffered from teething, and had been casually seen by Dr. H. M'Cormack, of Belfast. An emetic was administered, and an irritating liniment rubbed on the breast. The nurse, in raising the child in bed at night, obsreved a phosphorescent light about the hips, both before and after the candle had been lighted. The legs were also observed to be luminous for a short time. From what Dr. M'Cormack could learn, the appearances very much resembled that produced by phosphorized oil, but none of this had been employed. The phenomenon occurred only once. The mother had, however, observed, that on one occasion a spark (electrical) had flown to her hand from the infant's body. Cases of human phosphorescence in the living body are rare, and the fact recorded by Dr. M'Cormack is, therefore, interesting.—*Ib.*

Rape on an Idiot. Reg. v. Ryan.—The prisoner was indicted for rape. The prosecutrix was an idiot, and when asked questions in the witness-box was evidently unconscious of their purport, and not in a condition to understand right from wrong. Platt, B., interrogated her father as to her general habits, whether they were those of decency and propriety, and an answer in the affirmative was returned.

Platt, B. in summing up. The question is, did the connection take place with her consent? It seems that she was in a condition incapable of judging, and it is important to consider whether a young person, in such a state of incapacity, was likely to consent to the embraces of this man; because if her habits, however irresponsible she might be, were loose and indecent, there might be a probability of such consent being given, and a jury might not think it safe to conclude that she was not a willing party. But here the presumption is that the young woman would not have consented; and if she was in a state of unconsciousness at the time the connection took place, whether it was produced by any act of the prisoner, or by any act of her own, any one having connexion with her would be guilty of rape. If you believe that she was in a state of unconsciousness, the law assumes that the connection took place without her consent, and the prisoner is guilty of the crime charged. The prisoner was convicted. —*Ib. from Law Times.*

Delirium Tremens in an Infant.—A little boy, five years of age, swallowed by mistake a large quantity of brandy. Vomiting speedily followed, and he passed a restless night, sleeping only towards morning. On awaking, it was observed that he had tremor of the hands, and that he could not hold a cup steadily. Convulsions with cramps ensued. The pulse was slow, the look timid, the pupils dilated, and the countenance pale. Dilirium supervened, and there was dysuria with great thirst. A cataplasm was applied to the abdomen, and calomel and jalap were administered. The symptoms abated about the middle of the day; but towards evening there was a return of the tremors with other nervous symptoms. An opiate was exhibited, from the effects of which the child slept soundly, and on awaking the whole of the symptoms had disappeared.—*Gaz. des Hôp.*

A novel method of detecting a needle by means of Magnetism, and its extraction. By R. T. Gill, of New York.—On Friday, November 13th, 1846, Miss D., while kneeling upon the carpet run a cambric needle into her knee, and broke it. The usual ineffectual search having been made, it occurred to me, that a magnetic needle would detect it, and if the needle could be charged, its poles might be located. For this purpose, the north pole of a horse-shoe magnet was drawn several times from above downwards, over the point of entrance. Then having charged a darning needle, suspended by means of a thread, and holding it near the point where the cambric needle had entered, it was found to have slight polarity.

The horse-shoe magnet was then bound below the knee, diagonally

across, so as to present the north pole towards the point of entrance, that the needle might thus be charged more effectually by induction. On the 16th, a proper magnetic needle having been procured, and presented to the knee, its north pole was strongly attracted to a certain point, which was marked with ink ; then on presenting the south pole, and moving it up about three-quarters of an inch, it was strongly attracted, and that point also marked. An incision at right angles, bisecting the disc between the two marks, struck the needle at its centre. Having passed a curved needle under it, so as to fix it, then cutting down upon one of its points, it was extracted.

The needle had moved more than its length below the place of entrance, caused somewhat, possibly, by the attraction of the horse-shoe magnet.—*N. Y. Annalist.*

Upon the Efficacy and Mode of Administration of Belladonna and Atropia. By W. R. Wilde, M. R. I. A., Surgeon to St. Mark's Ophthalmic Hospital.—One of the greatest improvements in the oculist's materia medica of late years has been the introduction of the alkaloid denominated Atropia, which, we believe, we were the first to introduce into practice in this city, upwards of two years ago. It was procured for us by Messrs. Bewley and Evans, who have solutions of it according to our formulæ, of the following strengths : one grain, two grains, and three grains to one drachm of distilled water, and three drops of spirits of wine, and numbered 1, 2, and 3. The salt is rendered soluble by the addition of a drop of dilute nitric acid, and the spirit is added to make the solution keep.

A single drop of number 1 placed upon the conjunctiva of the lower lid (where it causes neither pain nor irritation,) in a healthy eye, dilated the pupil, in a period of time varying from five to fifteen minutes, to double, or even more than the ordinary medium size, and will retain it so, upon the average, from four to five days ; at which period it generally begins to contract, but the pupil does not fully regain its previous size, nor the iris its mobility, till the sixth or seventh day. There will be, no doubt, exceptions to this rule, particularly in cases where there may be such an idiosyncrasy present as would render the eye susceptible to the action of the atropa belladonna used in any form, and perhaps keep the pupil permanently dilated for months. To counteract this effect of the solution number 1, we have employed upon the second and third day after its application those remedies which generally excite the pupil to contract, such as sudden exposure to strong light, the application of electro-magnetism, the use of opium, and the application of the vinous tincture of that medicine upon the conjunctiva ; but each and all these means failed to lessen the size of the pupil, in many instances, until the end of the third, or fourth, or fifth days. Solutions number 2 and 3 produce a more decided effect upon the iris, and in a shorter space of time, and retain the pupil dilated for a longer period—even to the eighth or tenth day. When the object is to keep the pupil in a state of permanent dilatation, as in cases of iritis and aquo-capsulitis, as well as to try and break up recent adhesions between the iris and lens, or to withdraw the iris

from protruding through an aperture caused by a wound or ulcer near the centre of the cornea; in all cases of central cataract; where the cornea is opaque in its central portion, or that a portion of the pupillary margin of the iris is attached to the back of the cornea, after the distission of a cataract; or, in fact, in any case in which we wish to produce permanent or complete dilatation of the iris, the solution of atropia will be found much more efficacious than the usual mode of applying the extract of belladonna externally. It is, moreover, much more cleanly, and is not liable to the objection urged against the latter, of producing an unpleasant eruption around the brow on which it is applied, and it is preferable to the ordinary mode of placing a few drops of the solution of the extract between the palpebræ, inasmuch as it causes no pain nor irritation.

In cases, however, where there is much conjunctivitis, or even deeper seated inflammation, attended with lachrymation, present, it does not possess the immediate and marked power over the iris which it does in the healthy eye, and its effects pass off much sooner; and this remark is applicable even to the three-grain solution. It is possible that in such cases the mucous discharge, and particularly the lachrymation which is present, may dilute it too much, or the morbid irritability and increased vascularity of the organ may render it less susceptible of the local application of this remedy than it would be in an otherwise healthy condition, therefore, in cases of violent irritic inflammation, the syphilitic for instance, where the disease had considerably advanced, and extensive exudations of lymph had taken place, we would not solely depend upon the atropia solution, but likewise apply the extract round the orbit. In cases of recent protrusion of the iris through the central portion of the cornea, the result either of injury, or rupture from ulceration, &c., and when there was no great irritability and blepharospasmus present, we have applied the strong atropia solution externally, by means of a small portion of linen rag wet with it, and retained for a short time upon the closed eyelids, with the most happy results.

We may here remark that the benefits arising from dilatation of the pupil have not been sufficiently attended to in the general treatment of ulcers of the cornea. We have, on several occasions lately, been able not only to save the eye, but even to prevent adhesions between the cornea and iris (*synechia anterior*,) and consequent blemish, by means of the judicious application of the preparations of belladonna. In cases of rupture from ulceration, when we have seen the patient shortly after the rupture occurred—and in many of those instances hernia of the iris had absolutely taken place—we at once applied the atropia solution, closed the lids, kept them in that condition with isinglass plaster, and then applied a large pledget of lint smeared with the extract of belladonna over the eye and brow, and retained it in position by a light bandage, at the same time that we employed, when necessary, local depletion by means of leeches on the temples and over the malar bone, together with blistering, and constitutional treatment calculated to lower the inflammation and prevent the further spreading of the sloughy or ulcerative process in the cornea. We keep the eye covered up in this state for thirty-six or forty-eight hours, and have had, in most instances, the satisfaction of finding,

when we came to examine the eye, that the iris had been withdrawn from the wound, the pupil had dilated, and the cornea had united.

There are, however, certain cases in which the use of atropia is inadmissible, namely, in examining the eye for cataract, where we do not wish the dilatation of the pupil to continue longer than a few hours, if possible. In cases where we wish to dilate the pupil before we perform the operation for absorption of the lens, we have more than once seen unpleasant consequences result after this manner. It is well known to operative ophthalmic surgeons, that after the dilatation with the ordinary belladonna extract or infusion, the iris will, during the operation of keratonyxis, partially contract, either from the loss of a few drops of aqueous humour, or from its irritability being excited by the side or flat of the needle touching the margin of the pupil, or from the cataractous lens, whole or in a broken condition, pressing against it: and this condition is rather serviceable than otherwise, for should the lens be inclined to start from its bed, and press forward through the pupil into the anterior chamber, the iris acts as a partition to keep it in its place; while in a few hours the aqueous fluid is regenerated, the iris falls back into its natural position, and can afterwards be kept dilated by the continued external application of the belladonna.

If, however, the pupil has been previously dilated by the atropia, it is thoroughly immoveable, and the lens is liable either to press into it or become dislocated, and get into the anterior chamber. This latter accident occurred to us some time since, in breaking up the lens for congenital cataract. We had ordered a solution (No. 2) of atropia to be dropped into the eye the night previously, and on arriving in the morning we found the iris reduced to a mere ring. The child struggled a good deal, and a few drops of the aqueous liquid were lost during the operation, which consisted in a mere crucial incision into the capsule. On withdrawing the needle we remarked that there was no contraction of the pupil, into which the lens pressed. On visiting the child in the evening it had been so uneasy and complained so much of pain, and there was so much lachrymation present, that we were induced to remove the bandage and examine the eye. The cornea was found to have become plump, from the regeneration of the aqueous fluid, but the iris had remained immoveable, and the lens had started into the anterior chamber, where it caused considerable irritation and subsequent inflammation. It absorbed completely, however, without a second operation, and in a much shorter time than usual.

In cases of photophobia following cataract and other operations on the eye, and attended with myosis, which had resisted the continued external application of belladonna, as well as the strong atropia solution dropped into the eye, we have found the most marked beneficial effects result from the internal administration of the extract of belladonna, given in the form of solution, to the amount of the sixteenth of a grain, from three to five times a-day. This, in the course of thirty-six or forty-eight hours has seldom failed to relieve the pain and intolerance of light, and also to dilate the pupil as far as possible.

In neuralgic affections of the eye, characterized by pain of a burning

description coming on at a particular, and often regular intervals, sometimes at particular hours of the day, yet induced by reading or using the eye in any fine work, and unattended with inflammation or any apparent alteration in the texture or motion of the organ, &c. &c., in which rest, change of air, tonics of various descriptions, particularly iron, and other means, had failed, we have latterly administered belladonna internally, with the very best effect, in doses varying from the sixteenth to the sixth of a grain three times a-day, given in the form of a solution. It may appear strange, but it is nevertheless true, that in some cases of old and inveterate photophobia, as in that form accompanying pannus, or the ophthalmia attended by vascular cornea in discharged soldiers, the internal use of belladonna will be found most efficacious.

We quote the following from a recent Number of the *Gazette des Hopitaux*: "For a long time M. Berrard has employed in his practice at La Pitie, in place of the extract of belladonna, collyria containing the active principle of belladonna, atropia. This substance, signalized for the first time by M. Brandes, who had not, however, obtained it in its pure state, but since isolated by MM. Meire and Scines, presents many advantages over the extract of belladonna; first, by acting with extreme rapidity in dilating the pupil, and by being endowed with great energy, sufficient to produce its effect in a solution of 0·05 or 0·10, in twenty grammes of distilled water, possibly a consideration of little importance in an hospital, but of great value in private practice in enabling one to avoid the employment of black unctions, which disfigure so much, and for which some patients, particularly females, have a great repugnance."—*Dub. Quart. Journ. of Med. Science.*

The "Letheon" at the New York Hospital.—The inhalation of the ætherial compound recently patented by Morton, a dentist of Boston, for the purpose of inducing insensibility to pain during the performance of surgical operations, was tried to-day on a female, from whom two teeth were extracted. A dentist of this city, who has been appointed agent for the above patent—the inhaler and its contents—was present on the occasion. After some explanatory remarks relative to its peculiar properties, mode of administration, etc., he proceeded to exhibit its effects.

The inhaler consists of a glass globe, six or eight inches in diameter; it has two valves, one of which is attached to the mouth-piece and the other to the opposite side. Within this vessel is a large piece of sponge, and an ounce or two of liquid which has the odour of æther. The mouth piece having been placed within the lips of the patient, she was directed to breathe naturally, the nostrils being closed. During the inhalation, she coughed slightly once or twice, and required some persuasion to induce her to continue the process sufficiently long to produce the desired effects. After the lapse of six or eight minutes, she appeared to be in a state resembling that of intoxication; at this moment she was directed to open her mouth, and the teeth were rapidly extracted. The manifestations of apparent suffering, differed in no respect from what is usually seen during

similar operations, though on being interrogated when consciousness had partly returned, she acknowledged that she had felt little or no pain; that she knew nothing more of what had been done to her, after she was told to open her mouth.

On being questioned as to the state of her feelings, whilst under the influence of the vapour, whether they were pleasant or otherwise, she remarked that they were very unpleasant; this, the operator stated, was altogether different from what is usually experienced, the sensations being of the most delightful kind. When she arose to leave the theatre, she staggered like a person under the influence of liquor, and the assistance of two individuals was necessary to enable her to proceed.

The result of this trial, seems to confirm what has been stated in reference to the anodyne properties of this ætherial vapour, and that to a certain extent it renders the patient almost wholly insensible to pain. Though such be the fact, it cannot be denied that the employment of this *patented* nostrum by the profession—we mean those of it, who, by the position or rank they hold, are entitled to more than ordinary consideration and respect—is a wide departure from propriety, and the strict observance of the code of medical ethics. What now, we ask, is to prevent any member of the profession from using in his practice, any one, or all, if he pleases, of the patented medicines which he finds daily advertised and puffed in the newspapers, especially after the example set him by several of the surgeons of the two largest hospitals in the country? These gentlemen, have, we fear, incautiously ventured upon slippery ground, and it would be well for them to pause and reflect ere they proceed further."

[We have given place to the preceding statement, kindly furnished us by an eye witness, because we thought, that as public chroniclers of passing events, we were bound to furnish our readers with a notice of what was doing in a matter now exciting general interest. The results appear to be confirmatory of those obtained elsewhere by the use of the Letheon, although the gentleman under whose auspices they were undertaken, has been heard to express himself as by no means satisfied, that it would be found equal to what is anticipated by more sanguine experimenters. It is not our intention to make any comments, since no public testimony of approbation will probably follow. Moreover, the Letheon has as yet been confined to operations in dentistry. We do not object to dentists making use of this vapour, but referring to our preceding remarks upon the subject, we cannot but rejoice, that an accident has deprived us of the necessity of applying to a surgeon of the New-York Hospital, the remarks we felt bound to make on the conduct of those of a similar institution in a neighboring city. It is true that the fluid has since been used, in the case of a patient upon whom a camphor moxa was burned, and with its customary tranquillizing effect, and that this trenches a little more closely upon the domains of our own science. But even this is a small matter, and as we flatter ourselves that no further trials

will be made, so long as the secret is kept, we shall dismiss it *sub silentio*, and willingly leave the Letheon, so far as the New-York Hospital is concerned, to the operation of those Lethean waters which will soon, no doubt, flow into it, and which, mingling with it, as with those of a whilom celebrated watery predecessor, will speedily so dilute it, as to lessen at once its dangers and its supposed efficacy.

Meanwhile, as was to be expected, the novelty has been eagerly caught at, as novelties ever are, and sundry persons have been in haste to make hay while the sun shines. Everything now a-days, must be introduced to the public, as well as to the profession, and Dr. Kimball, the agent for the Letheon in this city, has edified the world in a long article in a city paper, upon its virtues. It appears from this, that two surgeons of this city, one of them placed upon the very highest pinnacle of surgical fame, have successfully used the Letheon in their private practice. We can only regret that these gentlemen did not take the same view of employing patented and secret nostra as ourselves, a view, which, it gratifies us much to find, meets with very general favour in the minds of the profession.

It is pleasing to the philanthropist, who must appreciate Dr. Kimball's disinterested zeal in the matter, to be told that Dr. K. is constantly employing it at his house, No. 522 Broadway, with the most *gratifying results*. But perhaps the most remarkable recent instance of the application of this celebrated sedative, is that in which it was administered to a patient, who underwent, under its influence, the removal of a cancerous mamma. The case will doubtless be submitted hereafter to the medical profession, through an appropriate medium; but the philanthropic haste of several editors of newspapers, who had been "invited" to be present, has forestalled the operator, Dr. C. T. Collins, of this city, and a circumstantial account has already appeared in several of the daily papers. The patient, we are told, was insensible to the whole operation, and with the editor of the *Sun*, we "congratulate the accomplished and humane Dr. Collins," on his success. These congratulations are mingled, however, with a dread, that among certain prejudiced persons in the profession, who cling with tenacity to obsolete and antiquated notions of propriety, there may be found some fault, that editors of daily secular papers should have been invited to witness a surgical operation, without being cautioned that they were not to suffer any account of it to appear in the prints under their control, a thing not only unusual, but liable to the suspicion of having been done for the sake of giving éclat to the operator, rather than to the Letheon; as tending slightly towards charlatanry; opposed to that nice sense of rectitude of conduct possessed by the persons aforesaid, and detracting in some degree from that sole regard to the interest of the patient, which it is thought by them should characterize the actions of every high-minded and honourable medical man. Such persons might be disposed (which we are not) to attribute to Dr. C. himself, some hand in this matter, and to opine that such conduct ill became one who had been himself a teacher of others, and the pages of whose journal

teem with well directed attacks against the quackeries of the day. Speaking of Homœopathy, (p. 363 of the *Reporter*,) Dr. Collins expresses his belief, that "it would have fallen to the ground long since, had it not been for those of the regular profession, who previously had little to do, and possessed but little, if any real honesty, and took up the practice because it was *something new*, and that money was the *ne plus ultra* of their ambition." Now, there may be, we repeat, persons in the profession, who might be disposed to connect remarks of this kind, with the case in question, and therefore, acquitting, as we do most cheerfully, Dr. Collins of all participation in this extra professional publicity, and attributing it wholly to the intemperate haste with which the editors of our smaller prints seek to communicate information to their readers, or to be more charitable, to the delight felt by them as philanthropists, in the pain-saving process which they had just witnessed, we feel some regret that they were not cautioned against making the publications which they have done. It is perhaps proper to say, that in the little heading to the note subsequently published by Dr. C., the editor of the *Sun* states, that he attended the operation, "at the invitation of a friend."

We had hoped in this number of the Annalist, to have noticed the papers of Drs. Warren and Bigelow, in the No. of the *Bost. Med. Journ.* for December 9th, but space fails us. In our next we will consider them, and with some general remarks on the subject of medical patents, take leave of the unpleasant topic altogether. The following paragraph we append by authority:]

The newspapers of the city have published accounts of some experiments in the New York Hospital, in the case of a new nostrum for rendering patients insensible during surgical operations. We learn that this experiment was made without any consultation of the Surgeons of the Hospital, or any previously expressed concurrence on their part.—*New York Annalist.*

Sickness at Algiers.—According to the Gazette Mèdicale, the hospitals of Algiers, are at present overcrowded with the sick. Numbers of patients labouring under fever are daily rejected from the civil hospital. Notwithstanding the exertions of the medical officers, numerous patients die without assistance.—*Med. Gaz.*

Gases in sea water—M. Lewy states that sea water holds only half as much gaseous matter as river water, and that the quantity varies according to the hours of the day. Thus he found in the waters of the ocean the following proportions:

	Morning.	Evening.
Carbonic acid, - -	3.4	2.9
Oxygen, - - -	5.4	.6
Nitrogen, - - -	11.	11.6
	19.8	20.5

Ib.